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"Scire est nescire, nisi id me
Scire alius sciret."

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SOME SURPRISES IN MY PROFESSIONAL CAREER.

BY

J. Paul Bush, C.M.G.,

Surgeon to the Bristol Royal Infirmary;
Lecturer on Operative Surgery, University College, Bristol.

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A PRESIDENTIAL address may be of some use to our profession in the same way as a large river by its numerous tributaries brings down valuable soils from various geological formations, these become intimately blended in the stream of medical knowledge, and some grains may be deposited and bear fruit hereafter.

It is quite impossible for me, however, to give one of those learned or scientific addresses that have usually been delivered at this first meeting of the Session; I do not even intend to try to do this, and I shall be quite satisfied if any remarks of mine this evening add only a few drops to some small tributary running into the flood of useful knowledge, or

even should a small portion of this address sink down as alluvial soil into the pages of the *Journal* of this Society.

As I have to follow so many eminent and eloquent presidents, some of whom I see here to-night, I shall have considerable difficulty I know in interesting you; but there is one thing I feel certain I shall have, and that is your profound sympathy on this occasion. You gentlemen who have already so ably presided over this Society know what anxiety you experienced when choosing a subject for your presidential address, and you gentlemen who will be filling this chair shortly must contemplate with awe the rapidly approaching day that is in store for you.

It was most difficult for me to select a subject for an address, but during the summer I prepared with much labour what I thought was a passable paper, entitled "The Uses and Abuses of Specialism." Having finished it, I thought it might be wise if I let some candid friend glance through it before its delivery, when to my surprise and horror he handed it back to me, saying, "My dear fellow, it won't do at all: you have put things in much too clear a light, and you would for ever offend some of your best friends." I thanked him for his trouble, and with a heavy heart threw my notes into the waste-paper basket.

A colleague suggested to me that I should address you this evening on "twenty years surgery at the Bristol Royal Infirmary"; but on commencing this subject, I found it would deal so largely with the figures of some four thousand major operations performed by myself, that I quickly gave it up as unsuitable.

My next idea was that as I had been Secretary of this Society for so many years, and knew the early history of its formation, that perhaps it might not be uninteresting if I recorded some of the discussions, scientific and otherwise, that have taken place at our ordinary meetings, and let you into some of the hidden secrets of the council chamber of the Society; but on second thoughts, I decided we were as yet too young to review our twenty-nine years of active work.

I propose, therefore, to relate to you "Some *surprises* I have met with in this the first portion of my professional career."

Some years before getting qualified I found myself, through no fault of my own, left in charge of a considerable practice just outside Bristol. During several months of this my summer holiday I had in connection with this practice to look after the wants of one of the large Bristol workhouses, containing some five hundred inmates. I visited daily with much pomp and vanity that institution, and being only a dresser at this period of my embryo existence, and commencing to learn the importance of Lister's new treatment of wounds, which was just commencing to be taught, I was much surprised to find that all the old bread poultices and other dirty healing applications had given place to an ointment, made in the union kitchen, of carefully sterilised dripping mixed with certain antiseptics, and which formed an ointment almost identical with the original Unguentum Acidi Boracis of Lister, and which certainly kept down the stink in the old wards and healed up the chronic ulcers like magic. Another little point that surprised my simple mind during my work at this union was the case of pauper "X," who was an inmate off and on for several years. He had a cunning way of keeping himself supplied with various kinds of luxuries. He used to write to all sorts of firms for samples, and obtain usually by return of post quite large quantities of tea, sugar, wine, spirits, tobacco, and even cigars, addressed to "So-and-So, Esq., So-and-So Workhouse." Evidently he was thought to be the Chairman of the Board, or the Master at least. This went on for some time, but he was at last found out by one of the firms writing to the Chairman and asking why they had never received an order for goods after sending so many samples.

When at work at the Royal Albert Hospital, Devonport, we received a great shock—and it must have been a most unwelcome surprise to the public generally, and to the medical profession and those whose duty it was to look after the national health in particular—when the Radical majority in Parliament, pandering to the misguided whims of cranks and other faddists, in 1881 refused, almost without a warning, to grant the usual funds for carrying out the "Contagious Diseases Act," and consequently some eighty beds had to be closed in Plymouth alone, and thousands of infected women throughout the country

were allowed to spread broadcast and unrestricted the fell disease of syphilis and other venereal complaints. What this meant to the health and strength of the army and navy can never properly be realised; ay, and not only did this evil affect the bodies and life of our national defenders, but it penetrated deeply into the families and homes of thousands of innocent men and women far away from the garrison towns in which this Act had hitherto been applied; henceforth all chance of healing, both morally as well as physically, these fallen women was lost.

Another surprise was when I found myself in 1882 commencing to do a term in the convict prison at Portland. At this time there were over 1600 of the worst criminals in England, all undergoing long sentences of hard labour. Their wants and requirements were attended to by some 260 officers of the prison. The result of my first operation there was a surprise to me, and one not likely to occur again, as an empyema of both sides was completely cured by aspiration without drainage.

It was surprising to me, as a very young man, to see the ingenuity and power of ready invention shown by some of the prisoners in feigning diseases; and I could recount to you in detail numerous clever devices of malingering which were detected, if I were not prevented by the Official Secrets Act.

The educated criminals were the class which produced the most difficult cases of this nature: for instance, one prisoner who had a life sentence gave us much trouble in unravelling his counterfeit symptoms of a severe nerve lesion: and another took us in for a time more than once, for it was several days before we discovered that his fictitious hæmoptysis was manufactured by his scratching the posterior surface of a large tonsil with his nail, and that he was mixing the hemorrhage thus caused with saliva in his chamber utensil.

Artificially induced vomiting and diarrhœa, from picking up and eating when out on the works various little items not intended for human food, had to be carefully looked for; and it was surprising how easily some people could bring down a hernia, even when wearing a properly fitting truss.

I met with several surprises during the years 1899 and 1900, some of which may interest you if I mention them.

The Boer ultimatum reached England October 10th, 1899; and most of us, I think, were surprised when we found ourselves engaged in a war that was not brought to a finish by the end of that year. Our early reverses in South Africa kindled the military spirit that permeates all Englishmen, whether they be fighting men by profession or civilians, and in November I found myself with a host of others volunteering for active service. But owing to difficulties which arose in connection with one of my public appointments in Bristol, I was unable to proceed to South Africa until a little later, when I was asked to take out the Princess Christian Hospital, a hospital provided and maintained by the generosity of Mr. Alfred Mosely, an old Bristol man.

In making arrangements for a hospital which was to be about the same size as the Bristol Royal Infirmary many surprises were in store for me; and I wondered at the huge number and variety of things required for hospital equipment, ranging from cows to safety pins, and from house-flannels to X-ray apparatus.

For transport reasons our equipment had to be kept down as low as possible, and to diminish the size of the drug list I asked my five surgeons to each send me a list of the preparations they were in the habit of ordering most frequently. I was surprised to find that the combined list contained almost every preparation in the *Pharmacopœia*, together with some drugs I had never heard of; with the help of a fountain-pen, during a journey to London, I was able to reduce the list to one-twentieth of its original size.

The same thing happened with regard to medical books which one of my officers wished to take out with him as hospital stores; such works as *Donders on Refraction*, *Van der Kolk on the Medulla*, various treatises on diseases of children, tumours in connection with the pregnant uterus, and such-like volumes had to be left behind.

We sailed in February, 1900; and when we got on board we were surprised to find that our hospital staff had to commence

work at once, whether suffering from sea-sickness or not, as we had some three thousand souls on the ship to look after professionally.

On arriving at Cape Town we were much surprised to hear that Ladysmith had been relieved, and that the war was not over yet. The hospital and ourselves were ordered at once to Bloemfontein; but as soon as we had got most of our belongings off the ship we were instructed that our services were required in Natal, and so we re-embarked and proceeded to join Buller's army.

After selecting the ground and doing a certain amount of levelling, it was surprising how rapidly our buildings went up. It was indeed a surprise when we discovered that an ordinary "take-in day" meant the admission of about one hundred new cases, all seriously ill. And it may surprise some of you physicians when I tell you that sometimes we were unable to say whether a case was enteric or dysentery; even a *post-mortem* examination did not always clear up our doubts on this point, and I am inclined to think that very frequently the patient had both diseases.

Of all the fell enemies with which the British had to deal, undoubtedly the bacillus typhosus was the most deadly. Unfortunately our intelligence department, if I may apply the term to our bacteriological research laboratories, had not got its information sufficiently complete to enable us to check the inroads of this invader; and the result is most surprising, as we are left after this long and deadly war with unreliable data upon which to declare our verdict for or against the value of antityphoid serum with any degree of certainty.

These results might have been different had it been known then, as it is now, that the immediate effect of inoculation is to produce a phase, varying in length from one to many days, during which the patient is actually more susceptible to the disease than he was before inoculation. This being the case, it is natural that an infected area, such as a camp, should be the very worst possible place in which to carry out the procedure, and good illustrations of this occurred in Ladysmith and other districts.

The selection of the serum seems to require great care, and different sera varied considerably in their immediate effect. Some surgeons surprised me much when they told me that they had seen scarcely any symptoms follow the injection; but with us on board the troopship *Assaye* nearly every patient injected developed some temperature, and many became delirious. I myself, after receiving my first injection, performed the operation on several hundred others, but had to knock off in the afternoon with a temperature of over 103°; and my juniors informed me that for twenty-four hours I talked a great deal more nonsense than usual. I have no recollection of this, however, and you must take this statement for what it is worth; but I do know that for a couple of days I did not feel fit for any work at all.

Taking some 90,000 patients who were the subjects of typhoid vaccination during 1899 and 1900, we find that the inoculated men had only half the susceptibility to infection of that shown by the uninoculated, and the proportion of deaths among the inoculated was only half that among the uninoculated; therefore from the numbers it appears that inoculation for typhoid has done something to diminish the number of deaths from enteric fever, and with more definite sera and improved methods of inoculation we may reasonably hope for still better results before long. It is surprising to hear that the army authorities are proposing to discontinue the systematic inoculation of troops. I trust not.

Most of our typhoids came into hospital in the third week of their illness; and the anxiety of these cases was not lightened by the fact that a great deal of the nursing had to be done by the St. John's Ambulance orderlies—an excellent set of men in their way. And it was surprising how well they did, considering they had had no previous experience of hospital nursing until they learnt something on the troopship going out. They turned out a good lot, and willing to be taught the elementaries of tending the sick by our six most excellent nursing sisters. I cannot help mentioning the following which occurred during our first week. A night orderly failed to report a hemorrhage of about a pint from an enteric patient, because it was, he said, only *venous*

blood, and therefore not of any importance! We soon found out that it was necessary for the medical officer on duty to make numerous night visits to the wards, as some of the orderlies' night reports were of doubtful value, especially when they contained such statements as this: "Patient had his bowels *re*moved twice during the night." The author of this blunder, when spoken to on this subject, said: "But, doctor, permit me to vindicate my official position." The medical officer wisely moved on to the next patient, and left him vindicating his official position. One of our orderlies, an Irishman, was at first inclined to be a bit independent; and on a certain morning round appeared late in the ward, and excused himself by saying that "the Irish mail was in."

Another danger, apparently inseparable from inoculation, was the false sense of security which it established among some of the troops. I frequently heard those who had submitted to the operation chaffingly tell the "passive resisters" that they would be sorry when they would some day come "panting to the pool," but would be afraid to drink because they were not proof against enteric, thereby implying that they themselves, having been immunized, would have no compunction about drinking even infected water.

Although every precaution is taken in a camp or hospital to disinfect excreta and clothes—enormous quantities of corrosive sublimate and lime being used—still there is room for improvement in the sterilizing of water. We found that it was only by means of padlocks that the Kaffirs and Coolies employed in the hospital could be prevented from dipping their filthy hands and dirty bowls into the storage tanks of drinking water; and where these tanks had to be uncovered in places, they had actually to be guarded by a sentry to prevent pollution by our own people.

I am surprised that the authorities have not universally adopted some of the numerous patterns of field water-carts that have been suggested over and over again, constructed in such a way that at any moment the entire contents could be easily boiled, and so ensure a fair amount of sterile water being always available at the shortest notice.

In South Africa I am quite aware of the fact that frequently

there was no fuel of any kind to be found; and I hope the authorities will—if they have not already done so—consider the question of the use of petroleum, as it is stated that an ounce of this will produce enough heat to boil sufficient water for a man's use for twenty-four hours.

It is without question, I think, that the water supply was the main source of the spread of the infection of enteric fever in South Africa; but we must not take it for granted that if this liquid is made sterile and kept free from contamination, that then we are safe from the ravages of this fearful disease. We do not yet know what amount of enteric is produced by the awful dust storms that all our hospitals had to encounter; and it was surprising to notice how rapidly the myriads of flies were produced when the bad cases began to arrive: how much this mode of inter-communication had to do with the spread of disease, and how to deal with the plague of flies, we are at a loss to know. The other great plague—I mean the plague of women, that was worse than the flies in some of the hospitals—I am thankful to say we were spared, as we were too far from any large town for them to come in any numbers, and there was no place near for them to stay. We had a few residents who lived close to the hospital, and who were of very great assistance to us in supplying fresh fruit and flowers.

It was very surprising how comfortable our wooden huts were made; but there was always an anxiety about fire, as not only did we allow the patients to smoke in the wards, but during the hot weather we had to be on the look-out for bush fires, which were frequent and extensive round about us.

It was astonishing to me how our native servants made us "fire proof" by firing the dry grass and undergrowth close up to our buildings, and then driving the flames towards the approaching danger.

Our Zulu labourers were an interesting study, and we learnt something of their manners and customs while we were up country in Africa. It surprised us to hear that a Zulu woman never called her husband by his name, either when speaking of him to us or when addressing her spouse: she always used the phrase "Father of So-and-So." The husband had a peculiar

haughty contempt—if I may put it in that way—for his wife, for if they both were going in the same direction they would not walk together. At the same time the Zulus had very decided views concerning the ill-treatment of their women. For instance, it was surprising to learn that the wife could always depart to the home of her father if her husband was brutal to her, and there she stayed till her better half had expiated the offence. The *modus operandi* was this. He had to go in person and ask for his wife again. On his arrival at her village he was instantly set upon by all the women, young and old; and they had most likely been waiting a day or two for this hour of vengeance to arrive. By their laws they might not only use their tongues, but their nails and fists as well. Nor was the unfortunate man permitted to protect himself in any way. Having suffered much, he was not even then allowed to take his wife home again; but he had to return to his location with the sentence that he must pay over to his father-in-law a certain number of cows before he could demand his wife: the market value of a wife ranged, according to her weight and fatness, from five to ten cows.

We had a very complete set of instruments for doing X-ray work; and we found it was most convenient having this department in a room leading out of the operating theatre, with a dark room adjoining, so that plates could be developed and shown at once: consequently a large number of intricate injuries were sent to us for reports.

On visiting one of the big hospitals in South Africa I was much surprised and somewhat amused at hearing that the whole of their first supply of skiagraphic plates had been spoilt by being stored in the same hut where the X-ray apparatus was being worked.

On my return to England it was surprising, but at the same time most annoying, to hear grumblers, sitting in their armchairs at home, or in front of a comfortable fire at their club, and some also on political platforms, complaining in no uncertain terms of the hospital arrangements generally; and some of the remarks of a certain feather-bed critic, assisted by his anonymous friend the eminent but pugilistic Harley Street consultant, were in my

humble opinion quite uncalled for. Some of these irresponsible and ignorant critics, eaten up perhaps with the idea of some self-advertisement, whose sympathy for our sick and wounded appeared to take the form of almost malicious complainings of the deeds of others, rather than of aiding the nation by some substantial help, did not seem to understand that the first duty of a country at war with another is to fight; hence hospital stores, etc., which at times I admit were badly needed, had to stand aside, while men, ammunition and food were hurried forward over the single line of rails leading to the front. It is the old story of the necessity of the bullets having the preference of the pills. During 1900 I visited nearly every large hospital in South Africa, and saw something of their working; and I make the statement that although, of course, there were mistakes made, no army has ever been so well supplied with hospitals and all their comforts as our men were in South Africa.

On looking up the details of the Crimean War, I am surprised to find that if we had lost the same per centage in South Africa as we did in the Crimea, we should have lost 75,000 men; but our loss was about 25,000, and so we gained 50,000—if I may put it in that way.

The Royal Army Medical Corps did splendid work; their deficiencies, through no fault of theirs, were in numbers only, as they were about 25 per cent. short of their proper strength for an army of the size with which we commenced the Boer War. And as the war proceeded the Medical Department was called upon to provide officers for an army three or four times the size of that for which its establishment had been estimated as sufficient. And if in the time of peace the British taxpayer will not pay for a sufficiently strong Army Medical Department, the necessity must arise for seeking help from civilians; and if we ever have another great war—and I am not one of those who imagine we are going to live in peace evermore—the Royal Army Medical Corps must depend on at least 40 per cent. of the medicals being civil surgeons; but this assistance of the civilians must be organized and paid for, and the sooner the better.

It surprised me to hear on my return that in some hospitals

the civil and military elements did not quite hit it off. All I can say is that in my own case, and I believe also in the case of the excellent civil surgeons I took out with me, that there never was one single word of discord between us and my friend, Major Mathias, D.S.O., who was the military man attached to us, and who was the responsible officer for the numerous War Office reports, evidently drawn up by men accustomed to use an excessive amount of red tape. He was a first-rate fellow, and one who did everything to prevent friction of any kind. We were the only hospital run entirely by civilians in Natal; and I think it has been a surprise to the country in general how well this new idea of having civil hospitals attached to an army in war time worked out. It is an experiment that is likely to be followed in the future.

On looking up my books, it surprises me to find I have been examining recruits for the Bristol Police Force for twenty years; and during that period I find I have examined just under two thousand men for our Bristol force, besides a large number for the Colonial and Government services.

Candidates not attaining to our high standard in height and chest measurement are weeded out before coming to me, and all have to bring a medical certificate of fitness for police work.

It surprises me to find that I have been able to pass as fit only some 40 per cent. of these. A flattening of the plantar arch, commencing varicose veins, and defective hearing are the commonest causes of rejection; and in spite of this being the case, a large number of the men I have had to discharge from the force before they have served long enough for a pension, have been incapacitated by varicose veins or flat feet.

For many years I have given up rejecting men on account of a moderate varicocele only; and I have not had a single example of this condition giving trouble afterwards. I have been much struck with the small number of cases of phthisis occurring in policemen. Is this due to the open-air life they lead? Certainly, from their appearance, they feed themselves well!

It has surprised me to find that country men, and even country policemen, on joining the town force complain a great

deal of their feet and legs giving out. Is this due to the stone pavements or to the wooden roadways, or possibly to the area steps so frequently found in the cities.

In going over my notes of hernia cases, I am surprised to find what a large number of patients had a hernia of the large intestine. The appendix, as everyone knows, is frequently found in a hernial sac; but it surprised me a good deal a short time ago when I discovered that fashionable appendage sloughing in the scrotum. And it has not happened to everyone, I think, to have removed about a third of the urinary bladder without apparent discomfort to the patient, but with much surprise and regret to myself, in a case of a large omental hernia which completely surrounded and hid the herniated bladder. Several other unusual contents I have found in hernial sacs. On one occasion I unearthed a strangulated ovary and Fallopian tube in an inguinal hernia; and in another I discovered intestine completely blocked by a large gall stone; and in another strangulated hernia there was a cancer of the small intestine which I was able to remove successfully.

On looking up the subject of the removal of the ovary for disease, I am surprised to find it has fallen to my lot to have performed a successful ovariotomy on the oldest patient yet recorded, namely in a woman of 85. from whom I removed a cyst containing 19 pints. And I am inclined to think that the child, aged 6 months, from whom I removed a diseased ovary is one of the youngest patients that have lived to tell the tale.

About six years ago I first saw a young unmarried woman with a large, hard, irregular swelling below the liver. An exploratory operation revealed an irremovable mass which seemed obviously to be malignant. Some years later, as her condition remained the same, I again explored, but now I found the glands everywhere infected with what was considered, after a microscopic examination, to be sarcoma; and I had to abandon the operation for the second time. This year she again came into the Infirmary on account of the increase in size of the tumour. She was no worse in her bodily health, but complained of very great and increasing pain in the abdomen. Thinking that after the lapse of so long a time the diagnosis

must be at fault, for the third time I explored the belly cavity, and while poking about and trying to separate adherent intestines from the tumour, some stuff, looking like butter, came away in large quantities, then some very hard things like nail heads were felt, and after that a tooth or two came into view at the bottom of the pit. During the operation it was also suggested it might be a case of extra-uterine pregnancy, or even a cancer of the pancreas. Eventually, after coming across a fœtal skull, a tongue or two, and some other curiosities in the way of hair and fingers, I removed a teratoma from beneath the liver. She has made an excellent recovery.

Not very long ago I saw in consultation a case at one of our big lunatic asylums that looked very like a perforated gastric ulcer. She was very ill, but still insisted that she had several devils inside her. This, of course, we considered was one of her delusions; but when we extracted, by means of an abdominal section, an equal number of long hat pins from her stomach and peritoneal cavity, we came to the conclusion that it was not so much of a delusion after all; and we were surprised to find that, having got rid of her real devils, she recovered mentally as well as physically.

It has more than once surprised me how much septic material the peritoneal cavity will sometimes put up with. The doctor of the case will I know excuse my mentioning the following, which happened in private to me only a few months ago. I was operating in the middle of the night, and somewhat short-handed, on a large abdominal swelling, when suddenly the patient ceased breathing and appeared to be dead. Artificial respiration had to be performed for some time, during which several coils of intestine escaped on to the table, which had become greatly disarranged in regard to the antiseptic surroundings. We had no time even to wash the intestines before reducing them on account of the patient's struggles; and while we were doing this the patient involuntary inserted her hand into her own peritoneal cavity. She, however, made a first-rate recovery, and was none the worse for the unique experience of having herself handled her own internal organs without first washing her hands.

The following surprising case shows what some people will stand. Some years ago a mass, which had once been an engineer's assistant, was brought into the casualty room at the Infirmary. He had got caught on the shaft of a large machine, and was rotated on it at full speed for nearly three minutes. During his evolution his legs smashed through a window close to a workman in the next room, and so frightened him that he has never been the same man since. On going carefully over the case, this apparently lifeless mass was found to be a boy about 16 years of age, with seventeen fractures of major bones, including a fractured base of the skull and numerous other injuries. After a long illness he became convalescent, and received a considerable sum of money for his injuries; he is now one of the engineers of the Royal Infirmary, and apparently none the worse for his numerous fractures.

In conclusion, gentlemen, I must thank you for the very patient way you have listened to these very unscientific remarks of mine, and for the honour you have done me in placing me in your President's chair for the ensuing year.

LIGHT TREATMENT.

BY

A. J. HARRISON, M.B. (Lond.),

Physician to the Skin Department of the Bristol General Hospital,

AND

W. KENNETH WILLS, M.A., M.B., B.C. (Cantab.).

IN the March number this year (page 23) we published a paper called "Remarks on the 'Light Treatment' of Lupus (Vulgaris and Erythematosus) and Rodent Ulcer, &c.," and at the end of this article we made allusion to some cases of Acne and Paget's disease. We now propose to resume where we left off, and then make some more general remarks about other cases.

There were three cases of acne vulgaris about which details

were given. We can say that they were successfully treated with the X-rays, but it is quite clear that fresh infection is not prevented. Thus two of the cases returned after some time in an active condition, but soon improved again. The X-rays do clear up the infected skin, but after-hygienic precautions must be taken to prevent a fresh outbreak. For example, one of the cases became a stoker before a hot furnace, and naturally enough his condition, which had improved till not a comedo or pustule was to be seen on the back, returned to very much the same condition he was in when he first came under X-ray treatment, though now the back is much improving again. The X-rays apparently promote exfoliation and the secretion of the sebum, so that the sebaceous plugs are thrown off with the superficial layers of the epidermis. At the same time, any collection of pus under the skin may be temporarily increased in size. It has been our habit to express as many of the furunculi as possible before each treatment, puncturing the "blind" ones to help their discharge, and then treating the skin antiseptically.

This method proving so satisfactory, a case of "sycosis" was taken in hand. It was a very severe case, abounding in discharging granulomata. Marked improvement quickly followed, but a longer time must elapse before a final result should be reported.

Two cases of intractable eczema, resembling Paget's disease of the nipple, have been much relieved by X-rays. One case involved the right groin and adjoining vulva in a woman about 60. She had always been very healthy, and lived in a very salubrious country city. About two years before she came under our care an irritation commenced in the groin, and gradually spread. Proving very obstinate, it was cauterized (thermo-electric) on two occasions by her medical man, but the irritation returning, she was sent under our care. Under the X-rays it quickly healed over, and the intense itching diminished, but small spots would break down again, especially where the cauterization had been; but ultimately the whole healed apparently soundly, and now nearly a year has elapsed and we have had the information that the improvement remains quite permanent.

The other case is that of a man aged 54, in whom the right angle of the mouth and the adjacent mucous membrane were involved. He was sent to Dr. Harrison by a medical man in Bath in March, 1899, under the impression that the condition might be malignant. This it clearly was not, and under treatment it improved, but very readily broke down again. Looking back now at the early stages of Paget's disease, such condition seems to explain the recurring raw, scaly, fissured appearances. In 1902 he was healed with the "light treatment," and later on with X-rays, and soon great improvement manifested itself, and treatment ceased for a time; but he has had two or three slight relapses, which were readily relieved, and as it is now some months since he presented himself, it is reasonable to conclude that he is keeping all right. *Apropos* of these cases, we have had a case in private of Paget's disease in the right nipple region in a man. It was of several years' duration, but under the X-rays it improved very rapidly, and appears to be nearly cured.

A case of eczema barbæ is worth associating with the above cases. It is still under treatment, but the way in which the disease cleared off on the right side of the face with the exfoliation of the hairs, after the production of a slight erythematous reaction, was very remarkable. The skin was, and is still, absolutely smooth and clean.

There have been 50 cases of lupus vulgaris in the department since December, 1901, and with these should be included five cases in which the diagnosis was not certain.

There is not one of these cases of genuine Lupus vulgaris which has not received some, if not considerable, benefit, but it should be admitted at once that in a few cases no very great diminution in the area affected has taken place. This may probably be accounted for, first, by the length of time the disease has been present (48 years in one case); secondly, by the depth to which the individual nodules have extended; and, thirdly, many of the cases have been subjected to more or less severe surgical procedures, which render the penetration of the light much more difficult, as the scar tissue formed over the disease deposit is like so much ground glass in the front of a

light, diffusing the rays and thereby making them less effective, Yet in these cases improvement has taken place, in the sense that little, if any, extension has occurred during the treatment, ulcerations have healed, and, what is of great comfort to the patients themselves, the cold, dry winds, which crack and fissure the affected parts to a terrible degree, have scarcely had any deleterious effects. No doubt curative results are much influenced by the kind of infection with which we have to deal. A diffuse staining of the skin, with no definite nodules or isolated deposits, is the most unyielding to light or the X-rays. This form of the disease is not so common as the nodular, and has wrongly been diagnosed as Lupus erythematosus, whereas it is an erythematous form of Lupus vulgaris. It is surrounded by a slightly raised margin, and displays scales almost seborrhœic in character. The skin is easily affected by the light reactions, blistering extensively, yet when the reaction has passed off scar tissue is by no means always left behind. In these cases Dr. Hall-Edward's treatment of painting the cleansed parts with an aqueous solution of potassium permanganate gives satisfaction, in that it removes the scales and leaves the surface smooth, and in some cases supple. It is our practice to continue the "light treatment" so long as there is disease in the skin, and to treat the mucous membranes with the X-rays; but where the skin is ulcerated or extremely infiltrated, or where reactions are hard to obtain, periodic exposures are given with the X-ray tube in addition; and it is found that under this method ulcerations quickly heal, thickened indurated parts are reduced to normal size. and reactions are much more easily obtained. Cases of L. hypertrophicus—of which terribly disfiguring disease several have been treated in the department—well exemplify this statement. The soft, almost villous, granulations which characterise the disease retrogress and leave white scars behind, scars cleaner and smoother when no surgical scraping has been previously practised. When improvement like this is attained it is often very desirable to send the patients into the country when practicable, and give them a month's rest. In this way the reaction erythema and any blistering die down, making it easier to see any remaining foci of disease. Although this

adds time to the treatment, yet there is very distinct gain in the end.

We have classified the cases in the following way :—

Lupus Vulgaris.—50 cases, and one uncertain in diagnosis.

I.	Relieved		7
II.	Condition on skin relieved, but disease persisting elsewhere :		
	(*a*) Ulceration inside nose	4	6
	(*b*) Dactylitis, under treatment...	1	
	(*c*) „ and lachrymal sac abscess (tubercular)	1	
III.	Discharged, improved very greatly, though probably not quite cured		2
IV.	Improved, but still under treatment, some nearly well		22
V.	Ceased treatment, improved, some very slightly ..		9
VI.	Ceased treatment *pro tem.*, though improved (illness, &c.)...		2
VII.	Unsatisfactory through non-attendance		2
VIII.	Unimproved		1
IX.	"Recurrence" after apparently relieved		3
X.	Too soon to report anything...		1

In this table four cases are included under two headings.

It will be observed that V. contains nine cases. In one case the diagnosis was uncertain. It improved under the X-rays, but not under the "light treatment," and seemed more like a rodent ulcer: the disease was situated in the upper lip and septum of the nose.

We have treated several cases of tuberculous ulceration and dactylitis with the X-rays with distinct improvement. The discharge lessens, and the sinuses tend to heal. In one case healing occurred under the X-rays where there were ulceration and sinuses in the groin; and though the lad passed through a slight attack of diphtheria last April, the parts have not broken down.

Two cases of a warty, discharging condition of the thumb, very much resembling verruca necrogenica, have been treated with X-rays, and with excellent results: one is nearly well, and the other has shown no return since last seen on August 1st.

Lupus Erythematosus.—In all six cases have been treated. One case, very incipient, was relieved entirely; another left for treatment elsewhere; and the rest show only very slight improvement. One of them has improved by directing the light

at a distance, and without any pressure, upon the diseased area, a method suggested by Norman Walker.

Rodent Ulcer.—Eighteen cases. I.—Relieved entirely, but still kept under observation, 8. II.—Improving under treatment, 7. III.—Unsatisfactory through non- or bad attendance, 2. IV.—Probably made worse, 1. This last may have been carcinoma; if rodent, and the sections made of small tags of growth were not diagnostic, it was of very rapid growth both before and during treatment. The subject was an old man of 78, very decrepit, and the disease is said to have occurred after an accident. Two months before he came to the hospital it started as a hard lump on the left ala of the nose, and very soon it began to fissure and discharge. In spite of treatment, the disease advanced rapidly until the infra-orbital notch was reached. Then the nerve became affected, and the pain was intense. The X-rays relieved the neuralgia for a short time, and this relief was the chief reason for their continuance; but the disease still advanced.

Another case (H. L., 73) was one noted in the March paper, in which there was extensive destruction of the superior maxilla, nose, and cheeks. His condition steadily improved, but as granulations began to appear round the upper central incisors these were removed, and revealed disease at the back of the tooth roots. The "rodent" condition seems relieved, but time must elapse to prove this. Bands of adhesion, especially on the left side, prevent the opening of his mouth wide enough to admit of thorough digital examination. He is being kept under observation, and is in excellent condition so far as his day's work is concerned.

Unless erythematous reactions occur in the treatment of rodent ulcer, very little good is done: they need not be severe, but the more pronounced they are up to a certain extent the more rapid is the healing. But eventually this reaction wears itself out, and another may be produced; if not—and this is mostly to be noticed in aged patients—the ulcer is apt to persist in spite of treatment. A good example of this has occurred in an old and very frail woman of 73. She came under observation in February, 1902, and rapidly improved under treatment at

first. The ulcer—about the size of half a crown, on the right cheek and lip, with hard, warty, everted edges—had commenced about 20 years previously, and had never had surgical treatment. It filled up and healed fairly speedily, but three nodules remained. These have been very difficult to remove, doubtless greatly increased by the frail condition of the patient, and by her consequent inability to attend the hospital regularly; and when she did she could not stand any protracted exposure. There is still remaining one small nodule and one spot of ulceration. The hard, solid edges are found to disappear, but go the sooner if they are touched with pure carbolic acid or are lightly scarified.

Cases of favus and tinea tonsurans have been treated by the X-rays for depilatory purposes with good results. Another interesting case was that of a woman who had carcinoma of the cervix and vagina, with fistula and incontinence of urine. She developed very extensive and acute septic (?) pemphigus. Acting upon the suggestion of Max Heine, the blebs were rayed at a distance, by means of the London Hospital lamp. The blebs dried up and irritation ceased after ¼-hour exposure. Some fresh ones came out later, but the skin condition was certainly improved. Where the urine irritated the skin fresh crops of blebs were constantly coming out in spite of the "light treatment." The patient died shortly after from the carcinoma.

The pains occasioned by carcinoma are undoubtedly much relieved by ray treatment This relief will last for from 12 to 24 hours, and can be obtained again and again.

THE DANGERS OF DELAY IN OVARIOTOMY.

BY

T. CARWARDINE, M.S., M.B.(Lond.), F.R.C.S.,

Assistant-Surgeon to the Bristol Royal Infirmary.

IT may be stated as a rule, to which there is no reasonable exception, that when a woman has an ovarian cyst she must either die or undergo an operation for its removal. Using the

term ovariotomy in its wide and generally accepted sense as applicable to the removal of cystic tumours of the ovary and broad ligament of a sufficient size to cause symptoms complained of by the patient and signs which may be detected clinically, the arguments in favour of early operation are now convincing; whereas a few decades ago, when abdominal operations were associated with a very high mortality, ovariotomy too often meant immediate death.

Delay on the part of the patient is permissible, though unwise; but delay on the advice of a member of the profession is usually inexcusable, when once the diagnosis of an ovarian cyst is made. Delay also arises from erroneous diagnosis, particularly when the condition is mistaken for ascites or tuberculous peritonitis, but this aspect of the question needs only to be mentioned and passed over.

The question to be discussed here is this: once an ovarian cyst is diagnosed is it safe to defer operation? And I will illustrate the dangers of delay by reference to some cases which have been under my care.

1. **The size of the tumour** becomes in time an element of added danger. The increase in size is usually progressive, and an ovarian cyst may become dangerous from magnitude alone in from one to three years. In one case[1] the cyst contained 100 litres of fluid, and the pendulous abdomen reached down to the knees, the patient being only 25 years of age. In another remarkable case[2] the contents of the tumour weighed half as much again as the patient. The magnitude of the tumour gives rise to three classes of dangers:—

Pressure effects lead to œdema of back and limbs, to dilatation of the ureters, hydronephrosis and uræmia, to œdema and collapse of the lungs, to chronic intestinal obstruction and the like.

The difficulty of operation is increased. Not only is a larger incision required owing to the frequent presence of solid material or numerous minute cysts in the mother wall, but adhesions are commonly met with necessitating a more free exposure for their safe division.

[1] *Am. J. Obst.*, 1895, xxxi. 512. [2] *Med. Rev.* (St. Louis), 1893, xxviii. 3.

Shock.—It occasionally happens that when a large tumour is extruded from the abdomen, or a large cyst emptied of its contents, the patient becomes profoundly collapsed, particularly if there be much traction on the parts. I have met with one case in which this factor alone nearly cost the patient her life.

Mrs. H., aged 60, had suffered from indigestion, and twelve months previously had an attack of colic, when an uncertain cystic condition was noticed on the right side. A firm tumour reached to two inches above the umbilicus, and pressed upon a retroverted uterus below. The first stage of the operation was straightforward, but after extrusion of the cyst, and while the pedicle was being examined, the patient became profoundly collapsed. Artificial respiration was resorted to for ten minutes, and strychnine administered hypodermically: then the colour of the face, the pulse, and the normal character of respiration returned. She made a good recovery.

2. **Inflammation** is likely to occur in ovarian cysts from various causes; and, apart from torsion of the pedicle, the larger cysts are more liable to this complication.

Peritonitis of a simple plastic character is a rather common accompaniment, the patient having attacks of abdominal pain with pyrexia, causing her to take to bed. As a result of these attacks adhesions form. In rarer cases peritonitis is due to leakage or rupture; and if the cyst happen to be papilliferous, the peritoneum is likely to be grafted with the material, and a general papillomatous peritonitis results. The following is an example of repeated attacks of simple peritonitis.

E. H., a single woman, aged 27, had been subject to "wind attacks" during the last six months, and on two or three occasions had been confined to bed with pyrexia and abdominal pain, and had a severe attack of this character recently. The uterus was found to be retroverted, and a transverse cystic swelling occupied the lower half of the abdomen. On cœliotomy, the cyst was found adherent to the abdominal parietes, the pelvic wall, the omentum and intestines, and the contents were colloid and papillomatous. The cyst arose from the left broad ligament: its pedicle was twisted to the right for one whole turn, and when untwisted presented an anæmic circle at the site of torsion. The left ovary presented a cystic corpus luteum, which was incised, the ovary being preserved. Recovery.

Suppuration of an ovarian cyst is a serious complication, and renders the patient extremely ill, causes the cyst to become firmly adherent to contiguous parts, and ends in death unless

relieved. Rarely a suppurating cyst has burst into the bladder, bowel, vagina, or through the parietes. Unless the suppuration be of recent onset, there will probably be no chance of separating the adhesions, and drainage will be the only treatment possible.

A. W., a married woman, aged 36, was seen in 1898 for a swelling in the pelvis the size of a hen's egg, and she was advised that an operation would be necessary, but she delayed. In the middle of 1902 she was seen in great pain, and was pale and emaciated, with a temperature of 103. An immediate operation was performed. A thin-walled cyst was found, adherent to and surrounded by coils of gut everywhere within reach, and the contents were foul and bloody. Two large drainage tubes were inserted, as well as three pieces of gauze each about two feet long. The temperature at once fell, and she went home convalescent a month afterwards. She returned in August, 1903, with a similar condition on the left side, though not so large as the former. This was drained through an opening in the left inguinal region, the cyst wall being quite thick and adherent, and enclosing about two pints of odourless pus. She again recovered.

Fæcal infection is a danger much more serious than mere suppuration, and it is a risk to which all fluid collections contiguous to the intestines are liable, and in the case of infection of a large ovarian cyst the symptoms soon assume a grave aspect. The following is a case of fæcal infection of a universally adherent cyst ending in death, and in this result differing from all the other cases, as well as being the only fatal case I have had.

E. M., aged 24, had noticed that for some months she had been getting big in the stomach. Four years previously she had what was called peritonitis, and was treated for six months in an institution by ointment applied to the abdomen. Three days ago she had severe abdominal pains of a sharp type, and has since had cold shivers on and off. She was a healthy-looking woman, with a temperature of 100 to 103, and presented a tender and rather fixed fluid abdominal tumour the size of a full-term uterus. The cervix was soft, moved with the tumour, and the fundus could not be separately made out, so that there was considerable difficulty in excluding the possibility of pregnancy. The patient was rather drowsy, and the tumour became larger and more tender during the succeeding twenty-four hours. On opening the abdomen a cyst was found firmly adherent to the parietal peritoneum. Several pints of puriform fluid were withdrawn, of a very strong fæcal odour, and containing masses and flakes of shreddy, cheesy material. The spine projected

into the cyst behind, and the intestines bulged into it above. As a result of drainage the temperature at once fell, but the symptoms of fæcal poisoning continued, and progressive coma lasted till death. When subsequently examined, the cyst was found to have been perfectly drained and there were no signs of peritonitis. Intimate old adhesions existed everywhere—to the intestines generally, to the cæcum, to the sigmoid down to the rectum, and to the bladder, omentum, and parietes.

3. **The mobility** of a cyst arising from the ovary or broad ligament is a factor which may cause serious consequences, particularly when there is coincident pregnancy, as in two of the cases here recorded. The symptoms of torsion of the pedicle closely resemble those produced by intestinal obstruction, except that stercoraceous vomiting is unusual, and attacks of pain and vomiting accompanying a tender abdominal tumour are conspicuous features.

Torsion.—At first there is mere torsion, then venous obstruction occurs at the site of torsion. At this stage hemorrhage usually takes place into the cyst, which may be so great as to cause its rupture or the death of the patient. Finally, the arterial circulation is also arrested and the parts beyond the level of torsion become a blackened mass. This is usually described as gangrene, but, unless infected, the mass does not present the characters of moist gangrene and there is no stench; and as adhesions form during the process of strangulation, a certain amount of nutrition is provided by them. The following illustrates early torsion of an ovarian cyst complicating pregnancy.

Mrs. K., aged 31, consulted a surgeon in London 4½ years ago for a pelvic tumour, but operation was deferred because the tumour was not felt on a second examination. A fortnight ago she felt pain, tenderness, and a lump in the old spot. Amenorrhœa of three months corresponded to the signs of uterine pregnancy of that duration. A well-defined cystic tumour was felt in the right iliac region. This proved to be a dermoid of the right ovary the size of a large orange, the pedicle of which was twisted one-and-a-half turns to the left and was dark and congested. The cyst was removed entire, the patient made a good recovery, and the progress of pregnancy was not interrupted by the operation.

Strangulation is the effect of persistent torsion, and results in

a necrotic appearance of the parts involved, which become swollen, succulent, and rotten.

Mrs. S. A. H., aged 42, complained of an abdominal tumour, increasing in size and accompanied during the last six weeks by labour-like attacks. The uterus was somewhat enlarged, raised, and soft, and a tense, elastic tumour occupied the pouch of Douglas; moreover, the uterus was myomatous. Next day the patient had retention of urine, and the uterus had become raised an inch higher into the abdomen. At the operation I found a tense, black, adherent cyst occupying the pelvis and lower abdomen. It arose from the broad ligament, was strangulated by torsion of 1½ turns to the right, and the corresponding ovary was enlarged, gangrenous, and rotten. The Fallopian tube was involved in the strangulated mass and spread out over its surface (Fig. 1).

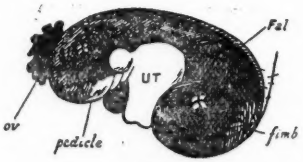


Fig. 1.

The accompanying inflammation of the adjacent peritoneum may affect other parts also, causing their agglutination. Here is a case in which the pedicle was not only twisted, but was enclosed by a loop of adherent colon, the patient being also pregnant.

Mrs. S. had 1½ month's amenorrhœa, followed by two attacks of pain with an interval of a week between them, the pain being very severe in the lower abdomen, and passing into the thigh. A very tender abdominal swelling could be made out in front of the uterus, and for two or three inches above the pubes. Then there followed sudden increase of pain with collapse. Signs of peritonitis also became manifest, the swelling increased to the level of the umbilicus, the temperature rose, and the pulse became small and thready, 120. At the operation a dark bluish-black, soft, cystic mass presented, adherent to congested peritoneum in front, to the pelvic and abdominal parietes on the right, and to intestine on the left. The cyst was emptied, separated, and drawn out, revealing an enlarged uterus below. The pedicle passed through a hole formed by a loop of firmly adherent large intestine. On separating the adherent coils the pedicle appeared black, and rotated for two whole turns, and the pelvis contained some free fluid.

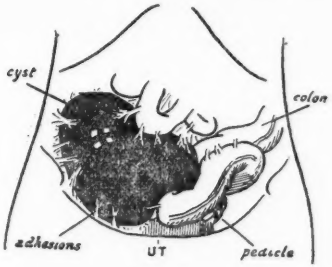


Fig. 2.

Some 36 hours afterwards she aborted a two months' fœtus, and eventually made a complete recovery (Fig. 2).

Transplantation of the tumour is another effect of torsion of its pedicle, and several cases have been recorded in which an ovarian cyst has become divorced from its original attachment, and has become yoked by fresh bonds to a distant part of the abdomen, even to the liver. When a fresh attachment obtains the original association is apt to be overlooked or forgotten.

4. **Intestinal obstruction** may be another result of delay in the removal of an ovarian cyst, and there are three ways in which this may arise:—

From direct pressure.—The mere pressure of a large cyst upon the intestines may be sufficient to cause a certain amount of chronic obstruction, but this will usually give way to saline aperients and enemata repeatedly administered.

From adhesions.—These may be sessile unions between the cyst and gut, interfering with the natural peristalsis or causing kinking of the bowel; or they may be band-like, and give rise to the same signs and varieties of obstruction as bands in general.

From strangulation by the pedicle of a cyst crossing the axis of the gut in a simple or complicated manner.

5. **Changes in the cyst wall.**—These comprise rupture, malignancy, and calcification.

Rupture may result from injury, strain, or over-distension, and may be repeated after the cyst has refilled. Thus I remember a woman who on two occasions emptied the contents of an ovarian cyst of large size into a chamber whilst in the

squatting posture. In the following case the abdomen was full of viscid mucoid material which had escaped.

Mrs. S. P., aged 48, had suffered from metrorrhagia since her last confinement, six years ago. Six months ago she noticed a swelling in the abdomen, which has increased much of late. Albuminuria and œdema of trunk and legs were present, with some basal pulmonary collapse. The cyst wall was very thick, and the contents too viscid to escape through the trocar. Similar viscid material was found all over the abdomen, including the lumbar recesses, so that it was only possible to remove it in part, for it was as viscid and sticky as treacle. The vermiform appendix was also removed, and the patient recovered.

Malignancy of the wall of an ovarian cystoma, or of the matrix of a solid tumour, needs no argument for its early removal: the earlier such a tumour is removed the better for the patient and the surgeon, if removed at all.

Calcification of the wall is a rare secondary change which has occasionally been met with.

6. **Adhesions.**—These become very serious obstacles to the removal of old and large ovarian cysts, and even in the present day they are occasionally met with of so extensive a character as to defy the manipulative ingenuity of the surgeon in his endeavours to avoid damage to important structures, particularly the vascular supply to the intestine, and the ureter.

The vermiform appendix is not uncommonly involved, and may require removal—a comparatively simple matter.

Intestinal obstruction may result, as we have before described, from sessile or band-like adhesions.

Other viscera in the peritoneal cavity, any or all, may be involved and become a menace to successful operation, from immediate difficulties and remoter risks.

The following will serve as examples, one of the cases being of interest from the bearings of the influence of ovariotomy on cancer of the breast.

Mrs. S. P., aged 45, complained of severe abdominal pain, and of a tumour reaching above the umbilicus, firm, lobular, and dull on percussion. The uterus was long and low. Four years ago she had what was called a malignant cancer of the breast, and the nipple is now seen to be drawn into a deep fold; and $\frac{3}{4}$-inch to its outer side is a depressed, puckered scar, with

a dry ulcer at the bottom having indurated edges, the induration extending a short way into the surrounding skin. The cyst was generally adherent by somewhat recent adhesions which bled easily, and the Fallopian tube and a very large pampiniform plexus of veins were removed also.

The case is of interest in the bearings of ovariotomy upon cancer of the breast, for when the patient left some three weeks afterwards the breast had distinctly improved. I regret that no microscopic specimen was taken to support this evidence and it may be noted also that the disease of the breast was on the opposite side to that of the ovary.

E. H., aged 41, was seen by me nine months previously for an ovarian tumour, but did not take the advice as to its removal. She noticed herself big three years ago, and was thought to be pregnant after three years of fruitless married life. A few months afterwards she had sickness and abdominal pains for nine days. At first there was amenorrhœa, but later the discharges were irregular and excessive. The uterus was found depressed, and a lobulated tumour occupied the whole abdomen. At the operation it was found that the tumour was chiefly solid and adherent, necessitating an incision from the xiphisternum to the pubes, and eventration after separation of adhesions. The adhesions were so intimate below that it became necessary to enucleate the mass as well as one possibly could, and to divide and ligate the strong attachments *seriatim*. It seemed at first as though it would be impossible to get the tumour away safely, and care had to be taken that the ureters were not injured. Two pints of normal saline fluid were left in the abdomen; and there was some shock afterwards and troublesome vomiting, but the patient made a rapid recovery and soon gained in weight.

7. **Ovarian tumours complicating pregnancy.**—It is only within recent years that the removal of tumours of the uterus and adnexa during pregnancy has been a recognised method of treatment, and I remember the trepidation with which certain London surgeons attempted the operation some years ago. It has fallen to my lot to perform the operation on three occasions with successful results. Two of the cases have been already referred to. In one case uncomplicated abortion resulted, and in the other two the pregnancy was uninterrupted, although, in one of them, operation extensively involved the pregnant uterus itself also. Under such circumstances there is, in my opinion, considerable danger in delaying the removal of an ovarian tumour

because a woman is pregnant. Indeed, ovarian cysts become specially dangerous during the incubation of the fœtus in the womb, and the dangers concern the three stages of child-bearing.

During pregnancy for many months an ovarian tumour is accompanied with all the risks previously referred to, besides those to both mother and child, from its association with the enlarging uterus, and a special tendency to torsion and strangulation during the pregnant state.

During labour there are the risks of obstruction to delivery, the dangers of rupture, and the possibilities of infective changes.

During the puerperium there is increased danger from septic changes and from mechanical effects within the abdomen, particularly when an ovarian cyst has become adherent to some part distant from the involuted womb.

From the foregoing considerations, it is a reasonable rule of advice that, under all ordinary circumstances, an ovarian tumour should be removed as soon as diagnosed, and that delay is dangerous.

A CASE OF INFANTILE SCURVY.

BY

BERTRAM M. H. ROGERS, M.D., B.Ch., B.A. Oxon.

Physician to the Royal Hospital for Sick Children and Women, Bristol.

I SAW recently, in consultation with Mr. Morgan Thomas, an infant suffering from scurvy associated with rickets, and believe that the case is of sufficient rarity and interest to be recorded. It is the only case I have seen during my connection with the Children's Hospital, though I am told that one of my colleagues had a similar one under his care a few years ago. Further, I believe, they are not frequently seen at the larger institutions in this city.

The history is briefly as follows. The child was about nine months old, and had been since birth fed exclusively on sterilised milk and a proprietary food of wide renown. He had been out of

sorts for a few days before I saw him, with indefinite symptoms, being fretful and crying readily. On the morning of the day Mr. Thomas asked me to see him, he had found the child very irritable and crying out if moved or handled at all, being evidently in great pain if touched. This was especially so when the legs were moved, the child preferring to lie with its legs hanging down in what is sometimes known as the paretic position. There was a large hemorrhage into one orbit, so large, that the eyeball was pushed downwards and forwards, rendering the child unable to close the eye. The gums were soft and had some hemorrhages on them, and the whole body was covered with the most severe and extensive sudamina I have ever seen, the chest and back being covered with clear blebs. The general condition of the child was fairly good; in fact, I have seen many children in the out-patient department with far more advanced rickets than this one. On examination I found the legs very tender to the touch, the child crying on the least movement. Both femora were enlarged with a fusiform swelling extending the whole length of the bone, but there was, as far as I could find, no hemorrhage between the shaft and the epiphyses, or crepitation that is sometimes found in these cases. There was also a similar swelling on one arm.

Considering the cause of the scurvy to be due to the diet, I suggested fresh milk should be substituted for sterilised, that the proprietary food be stopped altogether, and that the child should have orange juice daily. Mr. Thomas tells me that the child improved rapidly under this diet, though it had one or two relapses, and that it is now quite well.

The association of scurvy with rickets is usual but not necessary. Many cases have been reported in which rickets was not present, and even in children of more mature age scurvy has been seen from improper and insufficient food. As the cause of both is, as far as we know, due to an error in diet, the association of the two diseases is not surprising; in fact, considering the ignorance that exists among the poor—and the better-to-do, for that matter—about the proper bringing up of children, it is remarkable that scurvy is not more common, particularly since the extensive introduction of sterilised milk for quite young infants has become so prevalent.

In spite of what has been written on the subject, I am convinced that both boiling and sterilising alter the nutritive value of milk: its physical and chemical properties are changed, and it is for us to decide whether we shall run the risk of incurring a liability of contracting infectious diseases or

possibly produce scurvy. My own inclinations lead me to take the latter risk, for after all scurvy seldom follows, and when it does occur is very amenable to treatment. So long as our sanitary authorities have no power of inspecting dairies outside their authority, or are unable to make some working arrangements with the county authorities, so long will there be a liability of infectious diseases being carried by milk.

The conclusions come to by the American Pediatric Society, from the study of 372 cases, of which 87 per cent. were in private, is (1) that the disease is produced by unsuitable food, and that a change of diet, even if it seems an improper one, may cure; (2) that proprietary foods are the chief cause; and (3) that the further such food is removed from the natural one for a child the more likely it is to be followed by the development of scurvy.

The experience of English physicians is the same, artificial foods and condensed milks being the most frequent causes.

Of the disease itself we know little beyond that it seems to be a pure blood disorder, and not depending on any disorder of the blood-forming organs, the spleen, or bone-marrow. The most recent theory appears to be that it is caused by ptomaines in food. It has been produced by feeding animals on decomposed food, and it is claimed that in recent Arctic expeditions it was this that caused it, and not the absence of fresh vegetables or fresh meat.

NOTE ON SCURVY AS A CAUSE OF HÆMATURIA IN THE INFANT AND IN OLD AGE.

BY

R. SHINGLETON SMITH, M.D., B.Sc. Lond., F.R.C.P.,

Senior Physician, Bristol Royal Infirmary; Emeritus Professor of Medicine, University College, Bristol.

Two cases have recently been under my observation in which hæmaturia has been the leading feature: the one patient was an infant, the other at the opposite extreme of life, 87; both were fed on sterilised milk and proprietary foods. The

hæmaturia in both was clearly of scorbutic origin, and in both the hemorrhage rapidly subsided on the administration of an anti-scorbutic diet.

The infant was first seen on August 31st, 1903, in consequence of weakness of the lower limbs and something wrong with the urine. He was born at Christmas, and was fed artificially from the time of birth. The parents were strong and in good health, and the baby looked equally so up to about six months after birth; its weight at birth was seven pounds. It grew and appeared to prosper on a well-known proprietary infants' food. This food was made up with Pasteurised milk diluted with half water. No other food was given as the baby was well nourished, and the symptoms did not appear to be dependent on feeding or malnutrition. In August the mother took the baby to Bournemouth, and whilst there consulted a doctor, who examined the urine and found it to be albuminous. A few weeks before this the urine had been examined and was then said to be normal; but at this time (July) the mother had noticed something like blood in the urine. At the end of August there was definite and decided hæmaturia, but there was no œdema and no other evidence of any kidney defect: no casts could be found in the urinary sediment.

The teething began at about three months and continued normally; but the urine was at no time normal after six months from time of birth, and it was at this time that the weakness and soreness of legs became pronounced.

At Bournemouth in August the legs were always so tender that the child lay in an immobile state with the legs supported on a pillow, and screamed on the slightest touch or movement; but there was no actual paralysis and no appearance of wasting: the arms do not appear to have been affected, but the back was feeble.

Early in September the urine was constantly tinged with blood, and at this time there was some discolouration of and bleeding from the gums. It was then suspected that the hæmaturia and the weakness of the legs might be of scorbutic origin and due to some defect in the food; accordingly a change was made in the feeding. Fresh milk, unsterilised, was substituted for the sterilised milk in the preparation of the food; the juice of an orange was given, and was taken readily. No medicine was required, for in a few days after the change in diet the baby showed decided improvement, the tenderness of the legs became less pronounced, and the hæmaturia diminished. In the course of a week or so the urine had resumed its natural colour, although it still contained an appreciable amount of albumin, and the legs were resuming a more normal condition.

At the present time (October 25th) the baby is absolutely well, with the exception of a faint trace of albumin in the urine.

There is no tenderness of the limbs, which are used actively and with pleasure, and the teething is progressing normally. There is no manifest deformity or defect of any of the bones or joints, or any other evidence of rickets.

This case is a somewhat exceptional one, inasmuch as the leading features of infantile scurvy-rickets were not very decided, although there can be no doubt that the hæmaturia and inability of the lower limbs was of scorbutic origin.

The other case, that of a man 87 years of age, may be described as one of senile purpura with hæmaturia. He had been an invalid for months with feeble heart and anasarca of the limbs. Purpuric patches had appeared from time to time on the dorsum of the hands and also on the œdematous legs; the digestive powers were feeble, so that sterilised or Pasteurised milk, with or without Benger's food, was the principal variety of diet. On the occurrence of the hæmaturia a change in the diet was made: a vegetable soup was given, and the patient was encouraged to take a little potato with gravy, and some fresh meat juice; he also drank the juice of an orange and sucked some grapes. The change in the diet was soon followed by a cessation of the hæmaturia, and an improvement in the general state of the patient soon followed, for the anasarca became very considerably less, the power and action of the heart increased, and the patient—before apparently dying from failing heart and uræmic drowsiness—revived to such an extent that he has since had and recovered from an attack of pneumonic consolidation of the lower lobe of one lung. There has been no return of the hæmaturia since the change in the diet was made.

Since the year 1875, when attention was first directed to the subject of scurvy in infants, much has been written by Gee, Cheadle, Barlow and others; nevertheless, the condition may still be easily overlooked when it occurs amongst the well-to-do class of patients who are able to afford to buy the more expensive proprietary foods, and whose infants get less variety in their feeding than is the case with our hospital patients, amongst whom the condition is somewhat rare. The sub-periosteal hemorrhages, to which the pseudo-paralysis is due, have been fully described, and there is no necessary connection with either rickets, syphilis or rheumatism.

This case shows that the hæmaturia may be almost the only manifestation of scurvy in the infant; and its early recognition is of importance, in order that the necessary change of diet may be adopted without undue delay.

The latter case also suggests the probability that some of the

hæmaturia at other than the infantile period of life may be due to a cause which is easily overlooked because of its unusual occurrence: a scorbutic hæmaturia has long been recognised, and the purpuric finale of marasmus due to other causes than scurvy must of course be admitted; but it seems that our chronic invalids who are limited to a milk diet, and who take no other nourishment than that which is cooked, are running a risk which is often forgotten and ignored.

There is no evidence that sterilised milk is itself the cause of scurvy, nor have we any reason to think that Pasteurised milk predisposes thereto; but the persistent deprivation of fresh food at any period of life clearly entails the risk of a scorbutic hemorrhage as one of the earliest indications that a change in the diet is needful.

So also the routine feeding of tender infants upon the manufactured products of commercial firms should be watched with caution; and doubtless it is due to this cause that cases of so-called scurvy-rickets have been so much more frequent in America, where the proprietary foods have been much more in use than in this country.

It is to be regretted that the cooking of all foods of this kind should deprive them of some of their anti-scorbutic powers: nevertheless, we cannot do without them, and we cannot afford in towns to dispense with the process of Pasteurisation or sterilisation of the milk which comes to us contaminated with pathogenic germs either from accidental introduction or from the cow herself.

A CASE OF INFANTILE SCURVY OR SCURVY-RICKETS.

BY

CHRISTOPHER ELLIOTT, B.A., M.D.,

Senior Physician to the Royal Hospital for Sick Children and Women, Bristol.

CASES of the above kind are by no means common, and I think the following is for this reason alone worthy of being put on record.

In February, 1902, I was asked by Dr. McQuade of this city to see an infant aged eight months. It appeared that for the past six weeks the child would scream whenever she was moved or touched. At first she was thought to be suffering from rheumatism, but about ten days ago both thighs were found to be greatly swollen, especially the right. The mother stated that this swelling had come on suddenly one night. The thighs felt hard and indurated, but did not crackle or pit upon pressure. The left measured nine inches in circumference, and the right ten inches. The legs and upper extremities were not affected. There was no craniotabes, the ends of the long bones were not enlarged, and there was no beading of the ribs. The child looked very ill and anæmic. There were no ecchymoses beneath the skin or into the conjunctiva, neither had there been any bleeding from the nose, gums, stomach, bowels, or kidneys. Two lower incisor teeth had been cut, and there were signs of the corresponding two upper being about to come through. In reply to my enquiries, the mother informed me that she had been unable to suckle her infant, and as cow's milk had always caused sickness when it was given, she had rigidly excluded it from her baby's diet, and had brought it up entirely on a proprietary food. I pointed out to her the mistake she had made, and prescribed a change of diet and the daily administration of some fresh lemon juice, and under this treatment the little patient made a slow but complete recovery.

Remarks.—It is only during recent years that the attention of the profession has been drawn to this class of cases. Cheadle was the first in this country to do this, and was closely followed by Barlow, who was able to throw more light on the subject, as he had the opportunity of making a *post-mortem* in two out of eleven cases which he had seen.

That the disease is caused by the too prolonged use of one kind of food, such as sterilised milk or a proprietary food, is established beyond doubt by a record of cases by careful observers, and the rapid improvement which often follows upon a change of diet. The name "Scurvy-Rickets" should, I think, be now abandoned, for the disease is scorbutic more than diathetic; the association of rickets is rather accidental, and

owing to the age at which the disease is usually met with, namely, from six to fifteen months.

Tornp, of Christiania, has advanced the view that scurvy is due to ptomaine poisoning, but I do not think that this theory will satisfactorily explain the changes met with in infantile cases, and in what way they are produced is still a matter for further investigation. Shortly before seeing Dr. McQuade's patient I had the opportunity of being present at a *post-mortem* in a fatal case. In this infant the lower extremities were also affected, and there was not only sub-periosteal hemorrhage, but there was infiltration of blood into the cancellous tissue of the long bones, as well as into the soft parts surrounding them.

TRYPANOSOMIASIS.

BY

J. ODERY SYMES, M.D., D.P.H. Lond.

Assistant Physician and Bacteriologist, Bristol General Hospital.

THE blood-films which I have shown[1] were taken from a case of Dr. Skerritt's which was under my care for a period of two months during the past summer. The clinical history of the case will be found in the *British Medical Journal*, May 30th, 1903. The patient died on November 26th, and details of the *post-mortem* examination will be published shortly.

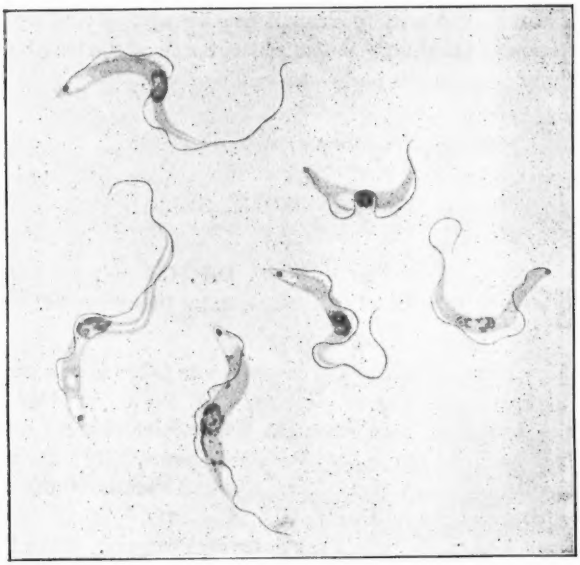
Trypanosomes belong to the order of Protozoa. They have been known as the cause of certain pathological conditions in animals, viz.: the disease known as "surra" amongst cattle in India; "nagana" (tse-tse fly disease) in S. Africa, S. America and Mauritius; "dourine" (a form of equine gonorrhœa) in N. Africa and S. Europe; "caderas," a disease of horses in S. America; and an unnamed newly discovered cattle disease in the Transvaal. Many varieties of rats are, too, infested with trypanosomes, and the parasites may be found to be almost as numerous in the blood as the red blood corpuscles.

[1] Shown at the Meeting of the Society, November 11th, 1903.

The parasites are communicated to the animals by the bites of fleas or flies.

It is not known that the trypanosomes of cattle are identical with those found in human blood or can be transmitted to man.

Human trypanosomes have been successfully inoculated on monkeys, producing the symptoms of typical sleeping sickness.



Trypanosomes in cerebro-spinal fluid.

Trypanosomiasis in man was first fully described by Dutton in 1902. The clinical features of the disease are: undulant, intermittent fever of prolonged duration not yielding to quinine, erythema, œdema, muscular weakness, rapid irritable pulse, anæmia, breathlessness, enlargement of the spleen, mononuclear leucocytosis, choroiditis, and iritis.

The parasite is best found in the blood at the height of the

pyrexia but may be absent for days together. At any time it is difficult to detect, as not more than five or six parasites are generally present in a blood-film spread on a 3-inch slide. The trypanosome in a fresh hanging-drop preparation of blood is seen swimming freely in the blood plasma. It is a transparent vermicule, having at its posterior end a long flagellum which is connected with an undulating membrane which is fixed like a flange to one side of the body. In the body is seen a well-marked nucleus, and at the blunted anterior extremity is a bright shining spot, the "centrosome." The parasites multiply by longitudinal fission, and the fission commences first at the centrosome.

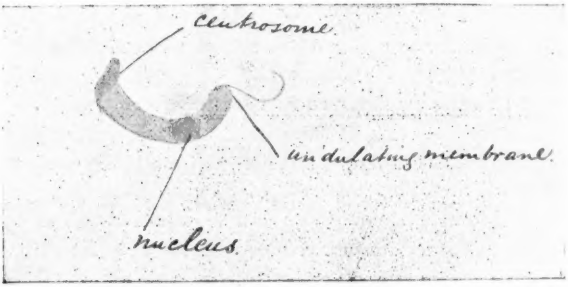
In preparing specimens from the blood the films should be spread fairly thickly and stained as soon as dry. Trypanosomes can be readily stained with Löffler's methylene blue, with thionin, or Jenner's blood stain; but if it be desired to show the differential structure of the organism, it is best to use Leishmann's or Romanowsky's stain.

As human trypanosomes measure from 18—25μ in length, more than three times as long as a red blood cell, by 2—3μ in width, they are readily detected by a $\frac{1}{6}$-inch objective.

We do not yet know how trypanosomes are communicated to man, but probably it is by the bite of the Uganda tse-tse fly (Glossina palpalis). Another point not yet cleared up is as to whether there be any causal relationship between trypanosomiasis and sleeping sickness. The arguments in favour of this relationship are as follows: The trypanosome is constantly present in the cerebro-spinal fluid of persons suffering from sleeping sickness, and when inoculated into monkeys produces the symptoms of this disease. It is not found in the cerebro-spinal fluid of other diseases. The pathological changes of sleeping sickness and the mononuclear blood-count resemble those of trypanosomiasis. The fly which is supposed to act as a host to the human trypanosome is only found in the districts where sleeping sickness is endemic. On the other hand, recent investigations have shown that trypanosomiasis is a fairly common condition amongst natives in certain districts, and may give rise to few or no symptoms, so that the association of sleeping sickness and infection by trypanosomes

may be accidental. Not more than three or four cases of trypanosomiasis in white persons have been recorded, and none of these have developed symptoms of sleeping sickness.

The presence of a streptococcus in the blood of persons suffering from sleeping sickness is regarded by Castellani as a concomitant infection.



MUSCULAR ATROPHY AND SCLERODERMIA.

BY

J. A. NIXON, M.B., B.C. (Cantab.), M.R.C.P. (Lond.).

THE association of muscular atrophy with sclerodermia has been recognised long ago, but originally those observers who noticed this combination of maladies were wont to attribute it to mere coincidence; or, later, as the associated conditions were being more frequently reported, it was customary to explain the atrophy of the muscles as being secondary to the cutaneous changes and directly caused by the compression of the altered skin.

Further research led to the blame being laid upon some

ingrowth of connective or fibrous tissue, which, spreading inwards from the skin, bound into bundles the muscle-fibres, interfered with their movement and nourishment, and finally determined their wasting.

Of recent years, however, cases have been recorded, at first isolated, but now somewhat more frequently, in which the changes in the muscles, far from following after the altered state of the skin, precede it, and, indeed, progress without the neighbouring skin being at any time affected.

Stelwagon, in his treatise on diseases of the skin, sums up the observations of other workers in the same field, and shows a large variety of lesions which have been seen with sclerodermia.

Thibierge has found it co-existing with arthritic changes, in which the joints may present the appearance of rheumatoid arthritis, even with ankylosis, a veritable "sclerodactylia"; and similar cases have been reported by Osler, Dercum, Elliott, Uhlenhuth, and others.

Alopecia and leucodermia have been described with sclerodermia, while local trophic disturbances—pain, heat or burning, sense of numbness, diminished sweat, in the affected area—are of frequent occurrence.

With such diverse manifestations, the ætiology of the disease can well be expected to be uncertain and possibly not always constant; yet the cases hitherto collected in which sclerodermia and muscular atrophy are related present so many points of similarity, both in the distribution and course of the affection, that the impression that some single cause governs these changes is wellnigh unavoidable.

The temptation of making all diseases conform to a type is a sufficiently strong one, and possibly many of the greatest errors in medicine have been made owing to this tendency on the part of scientific observers; one likes to pigeon-hole a disease, to minimise the points of contrast between one patient and another, and to bring out into high relief the similarities, so that the final triumph may be achieved of labelling a new disease with a new name, and suggesting a new (and probably "synthetic") preparation as the new remedy. But this is

"fame"—scientific medicine is being compelled to relinquish results for causes; pneumonia is being rapidly "moved on" as an entity to make room for the more comprehensive "pneumococcal infection." And as facts are collected in connection with any single disease, its relations with other diseases are added to, and its connections made use of to arrive at conclusions as to its origin. In this manner, from a consideration of one branch of the conditions allied to sclerodermia, may further light be thrown upon some common cause giving rise to the particular "symptom-complex," and eventually to other possible combinations of symptoms.

One of the most striking features of the disease pointed out by Thibierge in his "Contribution to the Study of Muscular Lesions in Sclerodermia"[1] was the existence of muscular atrophy with healthy overlying skin in subjects who showed the characteristic changes of sclerodermia in other parts of the body.

The cases of generalised sclerodermia, with extensive areas of glossy, thickened skin, robbed of its natural folds, which present the expressionless face and immobile features recognised under the designation of the "masque sclerodermique," are wont to attract attention primarily and often solely to the changes in the skin, while any limitation of movement in the muscles is attributed to the mechanical interference caused by the thickened skin and subcutaneous tissues; but even in these cases the muscle changes have sometimes gone unnoticed until the unusual appearance of the integuments attracted attention, although it may have been that the loss of expression and fixity of the face was in the first place a muscular defect.

The disease has been hitherto looked at too much from the point of view of the dermatologist, and even those authors who have recorded such cases have paid too little attention to those forms in which the muscular changes have occupied parts avoided by the sclerosis of the skin.

A case has, however, recently been in the Royal Infirmary, under the care of Dr. Shaw (by whose courtesy I am enabled to publish these notes), which demonstrated in the most marked

[1] *Rev. de Méd.*, x. 291, 1890.

way the extent to which the muscular atrophy may outrun the changes in the skin.

W. H. C., a man of 35, was admitted to the Infirmary on January 20th of this year. His occupation was that of a postman, with which he was able to combine the trade of a bootmaker. His health had previously been excellent, with this exception, that eight years ago he was confined to bed for a week with "lumbago and pains in the back." He was a single man, and very temperate in his habits.

His parents had ten children, of whom he was the youngest: two of these died from causes unknown, one of his sisters is "asthmatic," the father died in middle age of "congestion of the liver," while his mother is alive and hale; so that, unlike several of the cases of sclerodermia on record, there is no other instance of the affection in the family, neither is there any "neurotic" taint nor predisposition to any "skin" disorders.

The first symptom complained of was a weakness in the limbs, an order of events which I have not been able to find observed in any other cases; at first the left hand felt weak and numb, especially towards night—this was noticed at the outset fifteen months before admission. A month later the right hand followed suit, and aching pains were constantly present in the forearms. Soon after the legs began to ache on walking short distances so much, that after a five-mile round he was obliged to lie down and rest. Finally he was compelled to give up his postman's duties.

Twelve months before he came to the Infirmary the tips of his fingers started tingling, and were so sensitive that he gave up shoemaking, after vainly trying to relieve the tenderness by wearing woollen gloves.

So he at length consulted Mr. Henry, of Minehead, from whom I received an account, saying that in June, 1902, he was complaining of increasing "weakness," that he was very anæmic, listless, and depressed, and also the numbness of the fingers was a prominent symptom.

From July 8th to August 18th the condition was treated with arsenic in moderate doses; but at the end of this time, during which he had taken a complete rest and change of air, some darkening of the skin of the hands and in the flexures of the elbows and knees was detected, and the arsenic was discontinued. None the less, the progressive muscular weakness and the bronzing of the skin persisted and increased to such an extent, that as regards the loss of power the patient could no longer put on his coat, while the pigmentation suggested the possibility of Addison's disease. This was about Christmas, 1902, and in January, as the malady was not stayed, the man came into Bristol.

On admission, the patient presented at first glance a healthy, rather tanned appearance; but the face had a curious fixed,

mask-like expression, the skin being yellow, glossy, dry, and giving the idea of being stretched to its utmost in its attempt to cover his face. (Fig. No. 1 conveys something of this condition—the "masque sclerodermique.") The skin here, as in the other parts affected, was of a uniform hue, not mottled; it had lost its supple, elastic feel, did not wrinkle, and, as the patient said, felt "stiff" when he smiled.

Fig. 1.

On the front of the neck and down over the clavicles on to the chest the skin was similarly sclerosed and fixed to the subjacent tissues; over the lower abdomen it became thinner, but the pigmentation was deeper over the pubes and in the fold of the groin.

The skin of the legs was normal, but on the left foot was the scar of an old burn very deeply pigmented. There was no discolouration of the axillæ, while the skin on the upper arms was not thickened and only slightly yellow; on the forearms there was more change, while on the wrists, hands and fingers it was so thick and adherent that it was impossible to pinch it up into the slightest fold. The integument of the back showed only numerous freckles, but no thickening.

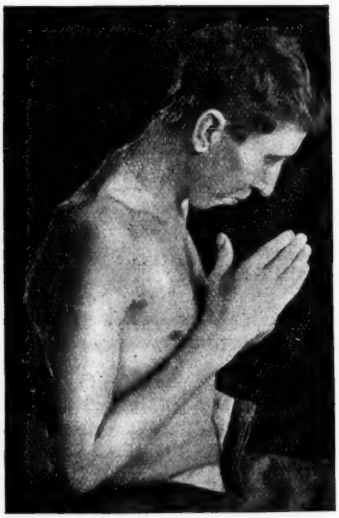


Fig. 2.

There were no areas of anæsthesia or hyperæsthesia, the affected skin pitted slightly on pressure, and here and there patches of erythema were present.

Striking as at first sight these cutaneous alterations

appeared, the loss of bulk in the muscles was even more noteworthy. The shoulder girdle suffered to the greatest extent, and the natural poise of the head drew particular attention to the wasting of the muscles at the back of the neck, for the head was carried in an attitude expressive of deep humility or profound meditation. (Fig. 2.)

The right side was more advanced in atrophy than the left, and the chief muscles involved were the deltoid, trapezius, supraspinatus, rhomboids, teres and triceps; each biceps was represented by a cord not thicker than a man's forefinger, and all the forearm muscles were much diminished in size.

The pectorals and latissimus dorsi, the anterior muscles of the neck and the legs were little if at all altered; but the glutei seemed gone, and the nates were composed almost entirely of fat. (Fig. 3.)

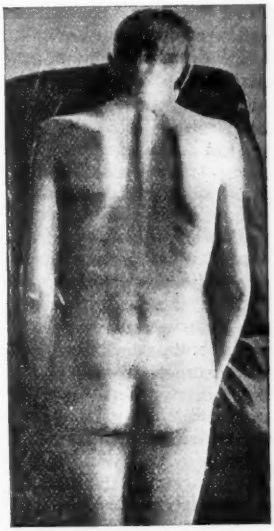


Fig. 3.

Not only were the movements of the limbs impaired by reason of the muscular atrophy, but the condition of the skin interfered with certain of them. The arms could not be raised above the head, as the skin of the front of the chest became tense and unyielding; the fingers for the same cause could not be completely extended. Mastication of food was a tedious process, and deglutition was slow and difficult.

The legs so far had escaped, but the calves felt "stiff." However, the patient could walk well and naturally, complaining only of being easily tired; if laid on the floor, he could not get up without help, owing probably to the weakness of the glutei. His method of rising from a lying position was precisely that of a child suffering from *pseudo-hypertrophic paralysis:* that is to say, he rolled on to his face, and, raising himself on to his knees, "climbed up his legs" with the utmost difficulty and unsteadiness.

Electrical reactions.

Faradic current.—No response in supra- and infra-spinati, trapezius, or muscles of upper arm.

Diminished.—Teres and rhomboidei: muscles of thigh and buttock. Normal in muscles of arms and legs, the peronei responding the most readily.

Galvanic current.—Reaction of degeneration in teres and thigh

muscles. No response in supra- and infra-spinati, trapezius, deltoids.

The general health of the patient was good, except for the fact that he was easily tired. Temperature normal. Pulse 80: small volume, low tension, and regular. The heart's apex beat was in the fifth space just inside the nipple-line, and the only noticeable defect was a feebleness of the first sound. The lungs appeared healthy in every respect. Urine 1030; no albumin, no sugar.

Fundus oculi, normal in every detail. No trace of a thyroid gland could be felt.

Reflexes.—Knee jerks very sluggish. Plantar reflex with difficulty obtained, but flexor type. No ankle clonus. Pupils react to light and accommodation.

The subsequent course of the disease was complicated by a series of untoward events, and the foregoing description of the cardiac and respiratory systems is given somewhat fully on this account.

On April 1st, after being in the Infirmary for two months or more, there was a sudden development of pleural friction on the right side, with fever ranging between 100° and 102°; the pulse became very feeble and irregular. There was a tendency to faintness, the heart dropping an occasional beat, and a murmur, whether endo- or exocardial it was difficult to say, was heard over the lower end of the sternum. Subsequently, double pleural effusion appeared, and with it loud pericardial friction.

This was no mere passive complication, but for four or five weeks the patient hung between life and death; he wasted rapidly, the respiration was grievously embarrassed, and the heart-failure became so serious a symptom that his recovery appeared impossible: on many nights the pulse was imperceptible and the heart sounds were inaudible. There was no evidence at any time of pericardial effusion, though the friction persisted.

Aspiration of the pleural cavity was performed on both sides of the chest on April 21st (R. Oij.ss. L. Oj. clear fluid evacuated). Again on left side April 27th, ℥xxxv. May 6th, right side, ℥xxxvij. On each occasion the fluid was serous, sterile, and no tubercle bacilli were found.

Shortly after the onset of these threatening complications the right arm became flexed at an angle of nearly 90° at the elbow, and the biceps could be felt as a tense cord, no thicker than the little finger, lying under normal, elastic skin, which could be easily raised from the underlying muscle; a lesser degree of contraction was later manifested in the left biceps, whose bulk was similarly diminished.

Contrary to all expectation, the patient lived on from hour to hour, almost pulseless, breathing at varying intervals a shallow breath that bade fair to be the last, and by night on several occasions the sister of the ward was told that art could do no more. He did none the less hold his own, aided by

strychnine and brandy to a trifling extent; but of all the stimulants resorted to, none could be found to approach tincture of musk in drachm doses for rapidity and certainty of effect.

It was not until the middle of May that any real improvement was noted; then, as inexplicably as it had come on, the signs of heart failure retreated, the pleuræ no longer filled with fluid, and the flagging strength revived.

On June 26th, for the first time since April 1st, the patient was lifted out of bed on to a couch. A month later he could stand with help, and on September 12th he was able to be moved to his home in Minehead, strong enough to walk across a room.

His lungs had cleared up, save from some dulness in the right axilla and scanty crepitations. The heart sounds were feeble and the apex not located, but the cardiac dulness was not increased.

He had no dropsy, though this had been universal when the heart was at its worst, and the breathing was full and easy.

As for his muscular system, so general was the wasting, that it was difficult to allot the probable shares to the primary affection or the intercurrent disease.

The sclerosis of the skin of the forearms and hands had progressed, and also of the upper part of the chest. The skin of the upper arms was still natural and thin, yet the contracture of the biceps had increased remarkably, the right arm being incapable of extension to much more than a right angle, while the muscles felt like mere cords in each arm. The muscles of the shoulder girdle were more wasted than on admission, and the legs were reduced to sticks; yet none of the thigh or calf muscles had contracted like the biceps.

Although repeated examinations of the pleural fluid failed to reveal the tubercle bacilli, and there was never any sputum to examine, it was difficult to put aside the idea of a tubercular pleurisy, for the pleurisy was sufficiently in advance of the heart failure to preclude the theory of a passive hydrothorax; and during the early days of the patient's stay in the ward the adjoining bed had been occupied by a man with phthisis, whose lungs were riddled with cavities and his sputum copious and purulent, teeming with tubercle bacilli.

Here then was a case in which the changes in the skin did not bear any causal relationship to the atrophy of the muscles: in the majority of the muscles which had degenerated there was no mechanical restraint exercised upon their movements by sclerosed skin and subcutaneous tissues; there was no ingrowth of fibrous tissue spreading down from the deeper layers of the integument, for in many places the skin was thin and

elastic, and could be without difficulty raised, as in the case of the biceps, from the muscle beneath.

The semiflexion of the arms was a prominent feature, but it does not appear to have been an instance of the joints becoming fixed "by the contracted integument" (*vide* Abraham in Allbutt's *System*).

M'Guire was one of the first to describe a case in which the atrophy outran the sclerodermia, and Thibierge collected accounts of five cases—by himself (1), Westphal (2), Goldschmidt and Schultze—with autopsies; but the investigations were not sufficiently complete, as Thibierge himself admits, to throw much light on the ætiology of the disease, especially with reference to the condition of the central nervous system.

Sclerodermia is not infrequently found in conjunction with symptoms of Graves' disease (Singer, Jeanselmes, Ditscheim, Grünfeld, Osler, Uhlenhuth and others), with the phenomena of Raynaud's disease (Hutchinson, White), and with other manifestations of abnormal pigmentation or leucoderma. The thyroid was noticeably atrophied in this case. The early symptoms are often local pain of a neuralgic or rheumatic type, sensations of numbness, and joint symptoms may coexist, all of which are frequent accompaniments of central nerve lesions, so that the view has been adopted by some that the cause is a neurosis—an angeio- or tropho-neurosis; and although many investigators have failed to discover any pathogenetic changes in the central nervous system, Westphal and Jacquet have described cord lesions.

The muscular atrophy in this case was not only consistent with a central cause, but could scarcely from its distribution and progress be associated with any other (including, of course, such generalised lesions as peripheral neuritis).

Many local phenomena of disease of the central nervous system are known, and identical lesions may have varying localisations; it is to some such group, which already includes trophic changes in the skin and joints, that this form of muscular atrophy may have for the present to be added.

The exact nature and causes are far from being determined; but, as Sir James Paget said of "rare and new diseases," that

the cases collected even as they are, singly and in disorder, need not be set aside with idle thoughts or idle words about "curiosities" or "chances." Not one of them is without a meaning, not one but might be the beginning of excellent knowledge, if only we could answer the question, "Why is this rare? or, being rare, Why did it in this instance happen?"

COLLARGOL: A REVIEW OF SOME OF ITS CLINICAL APPLICATIONS, WITH EXPERIMENTS ON ITS ANTISEPTIC ACTION.

BY

J. M. FORTESCUE-BRICKDALE, M.A., M.D. Oxon.,

Registrar and Pathologist to the Royal Hospital for Sick Children and Women, Bristol.

(From the Bacteriological Research Laboratory, University College, Bristol.)

THE purpose of the present article is to review and criticise the results obtained by the internal use of silver in diseases which may broadly be said to belong to the group of bacterial intoxications. The cases hereafter to be quoted will show in what a variety of conditions this drug has been employed, but the underlying indication has in all been the presence, either proved or assumed, of bacteria and their products in the system. Silver as an antiseptic was brought into prominence by Credé of Dresden, who in 1897 made a communication on the subject to the International Congress of Medicine at Moscow. He first used salts of silver (citrate and lactate) as wound dressings, and later employed the substance known as collargol, which he thought had a direct antiseptic action in internal diseases. I propose now to give a short account of the physical and physiological properties of this substance, then a description of the mode of its application, a summary of the clinical results, and lastly an account of the experimental evidence as to its utility.

Physical Properties.—Collargol (an allotropic modification of silver) is a blackish brittle substance with a slight metallic lustre, capable of forming an opaque black liquid when rubbed up with distilled water up to a proportion of 1 in 25. Weaker solutions are light brown in colour, and all leave an irridescent film on drying. It is not very stable, but is said to keep fairly well in the dark, especially if a little albumin is added to the "solution."

Physiological Properties.—Brunner states that a leucocytosis is established six hours after an intravenous injection, which attains its maximum in twenty-four hours, and has disappeared at the end of two days. Beyer states that in rabbits (after the injection of large doses) collargol may be found in the blood in eight to ten hours; he also found it in various organs eight or nine days later. It was excreted mainly by the intestine, and although he did not find it in the kidney, he considers that it is also eliminated in that way. Blood retains the colloid silver in solution remarkably well, and prevents its precipitation or conversion into the ordinary metallic form. All observers agree that it is rapidly eliminated, and that no poisonous symptoms ever occur.

Methods of Application.—Collargol has been employed in human and veterinary medicine. For internal use in infective diseases two forms are prepared: (1) An ointment containing 15 per cent. of the drug, a few grams of which are rubbed into the carefully cleaned healthy skin once a day or oftener; (2) A solution to be freshly prepared, as required, from the solid substance for intravenous injection. The strength of this solution is usually 1 per cent., 5 or 10 cc. (sometimes more) being injected once a day, or at intervals of two or three days.

Clinical Results.—I have been able to collect forty-four cases from the literature in which a clinical account, sufficiently full for critical purposes, is given. I shall divide them into five classes, for practical purposes, as follows:—

I. Cases in which other treatment was given which may fairly be credited with the results (six cases):—

1. Netter. Rheumatic pericarditis with recovery. Inunction + salicylates.

2. BRAINERD. A case diagnosed as general tuberculosis, with subacute symptoms suggestive of meningitis. Improvement began after one month. Inunctions + very careful hygiene, tonics, etc. A choroidal tubercle vanished during treatment.

3. FISCHER. Anthrax. Injections + usual surgical treatment of pustule. Recovery.

4. MÜLLER. Old standing tuberculous knee, clearing up quickly under injections. Although not mentioned, accessory treatment is certain, as patient was removed from bad surroundings into hospital.

5. NETTER. Cerebro-spinal meningitis. Lumbar puncture + inunctions.

6. DVORETZKI. Furunculosis. Inunctions + usual surgical treatment.

II. Cases in which a doubt exists as to the diagnosis (four cases) :—

1. NETTER. Broncho-pneumonia, which cleared up (pneumococcal). Phthisis subsequently diagnosed (although tubercle bacilli were never found) owing to signs of cavitation at one apex.

2. MEIER. Case operated on for mastoid disease. After operation temperature remained high, but fell in three days (inunctions). Lateral sinus thrombosis was diagnosed.

3. HAASE. Amputation with post operative fever. Stump appeared healthy. Temperature fell after one injection. Septicæmia diagnosed.

4. CREDÉ. Fractured pelvis and other injuries. Eight weeks after injury rigors occurred, which ceased after two injections. Septic peritonitis diagnosed.

III. Cases in which the influence of collargol is, from the nature of the case, doubtful (five cases) :—

1. NETTER. Pneumococcal pneumonia. Crisis on sixth day (inunctions).

2. NETTER. Enteric in a child (no "widal" done). Severe initial symptoms. Temperature normal in nineteen days (inunctions).

3. DVORETZKI. Erysipelas. Recovery after three inunctions.

4. CREDÉ. An advanced case of phthisis, in which (apparently during one week only) improvement occurred after injections.

5. NETTER. Scarlet fever. A severe case with recovery (inunctions).

IV. Cases in which collargol was inert (eighteen cases) :—

1–6. STROHMAYER. Puerperal fever. Three died of pyæmia Two recovered under energetic surgical treatment.

No effect observed after inunctions. One case in which temperature rose after the inunctions were discontinued, though they had no marked effect otherwise. Death from general peritonitis.

7–8. STROHMAYER. Streptococcal empyema.

9. STROHMAYER. Glandular abscesses after scarlet.

10. STROHMAYER. Furunculosis (yielded to incisions easily).

11. STROHMAYER. Popliteal abscess. Amputation subsequently necessary.

12. STROHMAYER. Middle ear suppuration after scarlet fever. Death.

13–18. NETTER. Tuberculous meningitis. (These cases are not reported, but Netter states that inunctions were inert.)

V. Cases favourably influenced by collargol (seventeen cases):—

1–3. S. S. JONES. Septic endometritis; POLAK. Septic endometritis; HEINSHEIMER. Parametritis. These cases occurred after delivery or abortion. The general (toxæmic) symptoms were severe. Adequate stimulant treatment, etc. In Jones' case only was local treatment discontinued when inunctions were begun. In all the inunctions were frequent at first (more frequent than in Strohmayer's cases), and improvement rapid. In none was there direct evidence of general septicæmia or pyæmia.

4. WITTHAUER. Empyema. Complete aspiration impossible. Rapid recovery under inunctions (12 days).

5–9. DVORETZKI and WERLER. Furunculosis. In four local treatment failed till inunctions were begun. In one local treatment not mentioned.

10–12. KLOTZ and WENKELBACH. In these symptoms certainly pointed to septic endocarditis. A fall of temperature and general improvement followed a few days' treatment with injections. S. pyogenes albus said to have been isolated from blood in one case, but this organism is practically always due to a contamination of the culture.

13. NETTER. Perinephric abscess. Operation. Wound healed five days after removal of tube.

14. NIESSEN. Chronic arthritis. A case which had resisted treatment for some time. No more attacks of pain occurred after twenty daily inunctions. A peculiar organism isolated from blood, but not proved to be ætiological.

15. DVORETZKI. Osteomyelitis. Six months' history of pain and discharge. Complicated by enteritis. Improvement in general condition after a week (inunctions).

16. CREDÉ. Acute rheumatism, with pleuritic effusion and pericarditis. Ordinary treatment had failed, but improvement occurred after two injections (48 hours). Patient then got worse, but after three injections (10 days) convalescence was established.

17. CREDÉ. Extensive gangrene. Incisions had been made. General symptoms improved, and temperature fell after each injection.

For critical purposes the first fifteen cases (Classes I.–III.) are obviously useless. In the remainder, seventeen are favourable to the efficiency of collargol and eighteen (including Netter's six cases, which are unreported, but being negative are admissible) are unfavourable. It seems clear that in about half the cases, therefore, collargol had an influence—principally seen in a reduction of temperature. In no case has it been proved to have influenced a general pyæmic or septicæmic condition, except in one case of Wenkelbach's, in which there were emboli which may have had a septic origin. In the pyæmic case recorded by Strohmayer, in which the temperature rose after the inunctions were discontinued, no amelioration of the symptoms had occurred during their application.

Experimental Evidence.—Credé in Germany and Bolton and Brown in America have proved that various metals have an inhibitory action on the growth of bacterio *in vitro*. The experiments of the two last-named observers are remarkably exact and very fully reported. Credé has classified the metals according to their inhibitory power, silver standing fourth on his list. The method adopted is to place a piece of metal on the surface of an inoculated Petri dish and observe the ring round it, on which few or no colonies appear. Credé states that a piece of silver placed on a septic wound is gradually absorbed, whereas this does not occur on an aseptic wound. I have only been able to find two accounts of animal experiments. Beyer inoculated two rabbits with anthrax, and injected one subcutaneously and the other intravenously with a large dose of collargol. Both recovered, but he makes no mention of a control animal. Trommsdorff calculated the dose of collargol for rabbits at ·0025–·0059 gm. He injected twenty-one rabbits in all, using the organisms of swine erysipelas and swine fever. The injections were given once or twice daily, and were begun in different animals either immediately or six, twelve, twenty-four aud thirty-six hours after inoculation. Ten animals received ten times the amount of collargol their weight assigned to them.

The animals weighed on an average 2,500 gms. Control animals were used, and his results in every case were negative.

I have been unable to find details of any test tube experiments as to the actual germicidal power of collargol, though it is stated to have inhibited S. pyogenes aureus, a fairly resistant organism, in solutions of ·05 per cent. to ·01 per cent. With a view to testing the effect of collargol as an antiseptic, I have been allowed to carry out the following experiments at the Bacteriological Laboratory of University College by the kindness of Professor Stanley Kent:—

A stock solution (50 per cent.) was prepared according to Credé's directions, and carefully kept in a stoppered bottle in the dark at room temperature. The cultivations of bacteria were all of twenty-four hours' growth, except those of anthrax, which were broth cultivations of 16–18 hours' growth. This practically prevented the formation of spores. Credé states that collargol has more effect on less virulent strains of cocci. It is to be noted, therefore, that my cultivations were prepared from ordinary laboratory strains of no especial virulence. Broth tubes were prepared containing 4 cc. each, to which 1 cc. of solutions of collargol was added, the strength of the latter being varied to bring the total to the required point. These broth and collargol tubes were then inoculated with the organisms, incubated at 37° C. for twenty-four hours and examined. The stronger solutions were so opaque that no growth (if present) could be seen. Coverslip preparations were therefore necessary; in weaker solutions these were also made to test the purity of the growth. The results were as follows:—

1 per cent. collargol. No growth of B. anthracis, S. pyogenes aureus, or strep. pyogenes.

·1 per cent. collargol. No growth of strep. pyogenes. Occasionally slight growth of B. anthracis and S. pyogenes aureus.

·05 per cent. collargol. No growth of strep. pyogenes. Growth of B. anthracis and S. pyogenes aureus.

·03 per cent. collargol. No growth of strep. pyogenes.

Growth of B. anthracis and S. pyogenes aureus (except in one case).

·02 per cent. and ·01 per cent. collargol. Growth of all three organisms.

Over seventy tubes were inoculated in this series. In addition to this, four glycerine Agar plates were prepared and inoculated with a mixed cultivation of streptococcus pyogenes and staphylococcus pyogenes aureus. After twenty-four hours' growth at 37° C., a solution of collargol was poured over the surface of the plate, and further incubation for twenty-four hours at 37° C. allowed. At the end of this time the surface of the Agar had become softened, and from the supernatant liquid broth tubes were inoculated and incubated in the same manner. The results with different strengths of collargol were:—

1	per cent.	collargol,	no growth.	
·5	,,	,,	growth of	both organisms.
·1	,,	,,	,,	,,
·05	,,	,,	,,	,,

In solutions, therefore, of ·5 per cent. and under, collargol has no bactericidal effect on strep. pyogenes or S. pyogenes aureus after twenty-four hours' exposure; both these organisms grow freely in solutions of ·02 per cent., and B. anthracis will always grow in a ·05 per cent. solution.

In living blood plasma the inhibitory and bactericidal power of collargol is probably less than in a broth cultivation medium. Behring has shown that the power of all antiseptics varies inversely with the amount of albumin in the medium in which they act; and Credé, as noted above, states that metals inhibit virulent cultivations less readily than non-virulent ones. With regard to the amount of collargol in solution in the blood, only an approximate estimate can be made, and that only in the case of intravenous injections. The right ventricle in an average man contains about 100 cc.; the weight of silver, therefore, carried into it with each pulse wave represents the percentage solution it will pump into the pulmonary circulation. It is possible to inject 1 cc. of solution per pulse beat, and this in

most cases would represent ·01 gm. collargol. The percentage therefore pumped out by the right ventricle would be ·01 per cent. At the outset of its course through the body, therefore, the strength of collargol would certainly be insufficient to inhibit even a delicate organism such as streptococcus pyogenes.

The general conclusions which may therefore be drawn as to the action of collargol are as follows:—

(1) That collargol has never been introduced into the body in sufficiently large quantities to produce an antiseptic solution in the mass of the blood.

(2) That the evidence is strongly against its having any effect on artificial septicæmia in rabbits.

(3) That as far as the above cases show it has not had any effect in proved cases of general pyæmia or septicæmia in man.

(4) That a fall of temperature and improvement in the general condition comparable to that sometimes produced by antipyretics and hydrotherapy has been observed in some cases of general toxæmia, but that in half the recorded cases admissible as evidence it proved inert.

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Progress of the Medical Sciences.

MEDICINE.

The "Status Lymphaticus."—Dr. G. Blumer discusses the connection of this condition with sudden death occurring spontaneously, under anæsthesia, and during infectious disease.[1] These cases are of interest from both a professional and medico-legal point of view. From the former it is most important to be able to recognize the subjects of a peculiar constitution which renders them extremely susceptible to shocks of various kinds, physical, psychical, and toxic, and which may lead to their sudden death from an accident which to an ordinary individual would be trivial; *e.g.*, death from the shock of a plunge into cold water, or, in the case of Prof. Langerhans's child, a few minutes after the administration of antitoxin. A suspicion of foul play may be entertained in cases of sudden death in apparently healthy infants, and cases are recorded where nurses or relatives have been accused of suffocating or maltreating infants, the true cause of death being shown at the autopsy to be the status lymphaticus.

Is it possible to make a diagnosis before the fatal attack? Escherich states that these cases usually have a pale, thin skin, a pasty complexion, and a good pad of subcutaneous fat. Frequently signs of rickets or scrofula are present. Superficial lymph-glands, especially of the neck and axilla, are enlarged. There is hypertrophy of tonsils, and of circumvallate papillæ of tongue, and adenoids. The spleen can often be felt; a percussible thymus may be developed, and Ewing's work suggests that the lymphocytes are increased. Unfortunately, as these patients are mostly in apparent good health until within a short time of death, the knowledge of clinical symptoms mainly relates only to that period. The immediate causes of death are two: cardiac paralysis and asphyxia.

Clinically the cases comprise:—(1) Those found dead in bed. These are mostly young infants; probably many cases of "overlying" are really due to this cause; a death in convulsions is suggested by the history of some of them. (2) Those of sudden death, presumably of cardiac origin. In all probability, cases reported by Nordmann and others, where sudden immersion in cold water was followed by instant death, belong to this class. (3) Those of sudden death, presumably of respiratory origin. Most of these cases may be classed under "thymic asthma." This condition has been confounded with ordinary

[1] "The Relation of the Status Lymphaticus to Sudden Death, Death under Anæsthesia and Infection." *Johns Hopkins Hosp. Bull.*, 1903, xiv. 270.

laryngismus stridulus, but there is probably no relation between them. Cases of thymic asthma vary in clinical type; sometimes the child dies in the first attack or series of attacks, or the condition may last for a week or even years, and finally terminate fatally or be relieved by operative extirpation of the thymus. In some cases there are no definite asthmatic seizures; the child presents accelerated respiration, an access of suffocation, cyanosis, dilated pupils, swelling of the veins in the neck, and death occurs in a few minutes. (4) Those of sudden death, presumably of nervous origin. Occasionally the status lymphaticus is associated with epilepsy. Some cases have died very suddenly during a spasm described as epileptiform. An unusual, so-called cerebral form of death from status lymphaticus has been described by Laub. It usually occurs in young adults, and causes death in a few hours, eighteen at the outside. The patient is attacked suddenly with coma, or perhaps epileptiform convulsions; sometimes there is spasm of the glottis or vomiting of a cerebral type; the urine contains albumin, but no casts. The *post-mortem* shows the presence of cerebral œdema, together with the ordinary signs of status lymphaticus.

Death during Anæsthesia.—Within the last few years attention has been called to the relation of the status lymphaticus to deaths during or soon after the administration of an anæsthetic. Almost all observers agree that death is due to cardiac failure; in some cases premonitory symptoms occur, but in many it is instantaneous. At first it was thought that chloroform was especially dangerous, but in recent years death has occurred under ether and the A.C.E. mixture. It seems that two classes of patients are especially liable to this accident: those with goître, either simple or exophthalmic, and those with adenoid vegetations.

Little is known of the **relation of the status lymphaticus to infection.** The author gives a fatal case of tetanus and one of general streptococcic infection modified by the status lymphaticus, and quotes Daut's paper on cases from Escherich's clinic, who found that over 25 per cent. of patients dying from diphtheria presented the picture of this state. The symptoms were in some cases a barking cough, hoarseness, attacks of spasmodic suffocation, weakness of heart, these attacks being altogether out of proportion to the amount of membrane, and in others sudden death. It would thus seem that the status lymphaticus may have a distinct influence on infections, sometimes modifying their course and sometimes masking them.

Pathological Anatomy.—This consists, broadly speaking, of a hyperplasia of the thymus gland and of the lymphatic tissues. The degree and extent of this hyperplasia vary, involving sometimes a special group of glands, or the intestinal and splenic lymphatic tissue especially, or the lymphatic tissue of the body generally; in practically all cases the thymus is affected. Other lesions often present are hypoplasia of the vascular system,

especially in adults; compression of trachea by enlarged thymus, in which case there may be subpleural and other subserous hemorrhages and atelectatic patches in lungs; œdema and congestion of lungs; œdema of brain; lymphoid condition of bone marrow; enlarged thyroid. Histologically, besides a general hyperplasia of lymphoid elements in thymus and in lymph nodes, Malpighian corpuscles of spleen, tonsils, and lymphoid tissue of intestine, there is a proliferation of the cells composing the germinal centres in lymph nodes, tonsils, and intestinal apparatus, associated with slight degenerative changes in the proliferated cells, and similar changes in the Malpighian bodies of the spleen.

Bacteriological investigation in the author's cases was negative.

With regard to the explanations advanced to account for sudden death in the status lymphaticus, the mechanical theory that death is due to asphyxia from compression of the trachea has met with much opposition. The author believes that the opposing views are largely due to diverse individual experience, for although many of the cases show no evidence of tracheal compression, in others the evidence is very convincing. He considers that there is no anatomical support for the theories that compression of the heart, great vessels, or the large nerves or nerve-plexuses, is the cause of death. Nor does he think that there is sufficient evidence for the view that the condition is due to an over-production of the internal secretion of the thymus. He refers to the great similarity which exists between the lesions of the status lymphaticus and those produced by Flexner in guinea-pigs by lymphotoxins, and described by him as lymphotoxæmia. He considers that the condition in the status lymphaticus is one of intermittent lymphotoxæmia, *i.e.*, that the regulatory mechanism which prevents either the action or the formation of autocytotoxins is at times in abeyance. He suggests that these patients are born with an instability of this mechanism so far as the lymphatic apparatus is concerned, so that they are subject to intermittent attacks of lymphotoxæmia. During the attacks they are especially susceptible to the action of bacterial or chemical poisons, and also to physical or psychical shocks, which may then cause their death under circumstances which would be trivial in a healthy person.

In connection with this subject we may refer to the paper read by Professor Ruhrah at the Swansea Meeting, "On the Relation of the Thymus Gland to Marasmus,"[1] in which he arrived at the following conclusions:—(1) Atrophy of the thymus gland is always found in cases of infantile atrophy. (2) The condition of the thymus is an index of the general nutrition of the infant. (3) The state of nutrition in infants may be estimated by a microscopic examination of the thymus

[1] *Brit. M. J.* 1903, II. 455

at necropsy. In the discussion which followed this paper, the question of sudden death in infants in whom a large thymus was found at the necropsy was raised, and considerable difference of opinion was expressed as to the cause of death in such cases. It was suggested that the normal thymus in a well-nourished child, such as cases of "thymus death" usually were, might be taken as enlarged because the condition of the gland in infants dying from chronic disease would be more familiar. Professor Ruhrah said there were undoubted cases of "thymus death," but he was inclined to think that some of those reported were due to other conditions, and that the normal thymus seemed unusually large because the atrophied one was more familiar. In the pathological reports of the nine cases in Dr. Blumer's paper the weight of the thymus is only given in two: it weighed 27 grammes in a child of ten months, and 30 grammes in one of seven years. The normal weight at birth is 12 grammes. The measurements given appear, except in two instances, to be in excess of the normal, sometimes very much so.

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Surgical Treatment of Brain Tumours.—Dr. Allen Starr[1] gives the following results of operation for brain tumours:—

		Cerebral.	Cerebellar.
Total number of cases operated upon	365	315	50
Cases in which the tumour was not found	111	91	20
Cases in which the tumour was found, but not removed	27	21	6
Cases in which the tumour was removed and the patient died...	59	51	8
Cases in which the tumour was removed and the patient recovered	168	152	16

Two elements which have improved the chances of success in such operations are:—(1) Accuracy of diagnosis and of localization of a tumour are to-day more easily possible than before; it can be determined with considerable accuracy at the present time, first, that a tumour is present, and, second, that the surgeon can reach it. (2) Improvement in surgical methods of access to the brain. The method at present used by McCosh is the best as yet devised. (For details the reader is referred to the original paper.) By this method the skull can be opened in from six to eight minutes after the original incision has been made through the scalp.

Further, extensive cutting of the brain and exsection of parts of it are not necessarily attended by danger, provided the hemorrhage can be arrested. For the above reasons the author thinks it probable that the statistics of the next ten years will

[1] *J. Nerv. and Ment. Dis.* 1903, xxx. 398.

show a very much greater percentage of successes than do those up to the present.

Dr. Starr considers the operation for **cerebellar** tumours to be one of great difficulty and danger. Cerebellar tumours as a rule lie either in the middle lobe of the cerebellum, immediately beneath the tentorium, or in the sulci between the cerebellum and the bulb, both of which situations are inaccessible. After a considerable experience of nine such cases, operated upon without any success, he considers it futile to attempt this operation.

Hoppe, in a paper on the same subject,[1] comes to the following conclusions:—(1) Cortical or subcortical tumours of any portion of the cerebral hemispheres which can be reached through the calvarium are operable. (Allen Starr remarks in the paper just quoted that whilst the difficulties of removing a deep tumour are many, and the chances of recovery, first, from the operation, and, second, from the symptoms, are much less in deeply-seated tumours, yet a growth lying one to two inches below the surface may be reached.) (2) If possible, the operation should be performed early, when the tumour is small, but even large tumours and those infiltrating in character have been operated on with success. (3) With few exceptions, the tumours hitherto successfully operated on belong to the psycho-motor area. (4) The result of surgical interference, even in the most successful cases, rarely leads to complete recovery; as a rule, symptoms due to increased intracranial pressure disappear after the operation, whilst the focal symptoms mostly remain or are only diminished. (5) Cerebellar tumours are inoperable. (6) Cumulative experience is against exploratory operations. (7) The question of palliative operations has a considerable weight of opinion on either side; the author, whilst leaving the question open at present, is personally opposed to them. (8) He thinks that gummata should be operated upon if they give the signs of tumour, and isolated tubercles also, if the conditions are otherwise favourable.

J. Michell Clarke.

SURGERY.

The operative surgery of the pancreas is so recent that a summary of what has been done may well occupy our attention, and papers by Dr. Deaver[2] and Professor Von Mikulicz-Radecki[3] may be taken as a basis for a statement of the present position of the subject. We need not concern ourselves with the treatment of pancreatic cysts, which is now well known; but in regard to trauma, inflammatory conditions and new growths, it is only within the past few years that surgical treatment has been undertaken.

[1] "A Report of Seven Operations for Brain Tumours and Cysts." *J. Am. M. Ass.*, 1901, xxxvi. 302.

[2] *Am. J. M. Sc.*, 1903, cxxv. 187. [3] *Ann. Surg.*, 1903, xxxviii. 1.

There are many reasons for the late development of pancreatic surgery. The pancreas is so well protected by its position that it is rarely injured, and even when such is the case there usually exist severe complicating injuries of neighbouring organs, so that the patient dies before the surgeon has an opportunity of interfering, or the lesion of the pancreas is easily overlooked.

Then there is the difficulty of diagnosis and the indefinite character of the subjective symptoms; for signs of functional disturbance of this important organ do not appear until the greater part of the gland is affected, and the surgeon has no longer any right to interfere when pancreatic diabetes has developed. It therefore follows that most cases are operated upon when the diagnosis is only probable, and only after the abdomen is opened can a differential diagnosis be made in many instances.

Moreover, in addition to the great danger from hemorrhage, there is a still greater one that is due to the special secretion of the gland leaking from the injured parenchyma in larger or smaller quantities and diminishing the resisting power of the peritoneum. Statistics show that in cases of injury of the pancreas tampon drainage has achieved better results than the closure of the abdomen without drainage, and it may therefore be concluded that wherever the pancreatic tissue has been exposed at all, the abdominal cavity must be tamponed and drainage established.

* * * * *

Pancreatitis is best divided clinically into the acute, subacute and chronic varieties. The classification of Fitz into hemorrhagic, suppurative and gangrenous pancreatitis rather represents different stages of the disease, with a common ætiology. Bacterial invasion undoubtedly plays an important part in acute pancreatitis, but it does not entirely explain the singularly severe symptoms. A severe hemorrhage from the pancreatic and retroperitoneal tissue occurs in these cases as a result of a peculiar dyscrasia of the patient, accompanied by hemorrhagic peritoneal exudation, which is not of bacterial origin. There can be no doubt that there is some special cause for this phenomenon, and it may best be attributed to the action of the pancreatic and fat-splitting ferments upon the gland which is the seat of a hemorrhage or has been otherwise injured. Alcoholism, arterio-sclerosis, syphilis and fatty degeneration must be regarded as predisposing factors of pancreatitis. Gastro-duodenal catarrh, with extension to the duct and followed by bacterial invasion, may be a factor; and ulcer and cancer of the stomach, pylorus or duodenum, and zymotic diseases, such as enteric fever, mumps and influenza, are the determining causes as stated by Robson and Moynihan.[1]

Biliary and pancreatic calculi are certain causes of pan-

[1] Robson and Moynihan, *Diseases of the Pancreas*, 1903.

creatitis. This has been observed clinically and produced experimentally. **Acute pancreatitis** is characterized by the sudden onset of epigastric pain, accompanied by prostration. Vomiting is an early and severe symptom; there is a tender swelling in the epigastrium, tympanitic on percussion, and constipation is so marked that a diagnosis of acute intestinal obstruction has frequently been made. Collapse ending in delirium and death may rapidly follow. Intestinal obstruction is the usual diagnosis made, as in a case referred to by the writer in this *Journal* about two years ago.[1] The obstruction, however, is not so absolute, and repeated enemata before peritonitis has supervened finally restore the peristalsis of the bowel. In favour of pancreatic disease is the history of previous attacks.

The treatment of these acute cases is still open to discussion. In true pancreatic apoplexy, owing to existing serious constitutional dyscrasia, a surgical procedure would hardly be justifiable, and on the other hand some of the milder cases recover without operation. But we know that hemorrhage into the pancreas may cause foci of gangrene and suppuration, and for purposes of treatment it is better to regard the majority of cases of acute pancreatitis as an acute phlegmon which, on account of the peculiar nature of the tissue, runs an unusually severe course; and as in an ordinary phlegmon, so in the pancreas, the only rational therapy—except in the very mild or very severe cases to which reference has been made—is to open the focus of infection and to empty and drain the toxic and infectious exudate. Gauze tampons will best combat the tendency to fatal hemorrhage. It is in the very early stage—before the formation of abscess—that surgeons are not agreed as to the desirability of operation; but inasmuch as there are many recorded cases where benefit has been derived from the removal of the hemorrhagic exudate, Mikulicz-Radecki[2] considers the following points to be in favour of surgical interference:—(1) The operation, under local anæsthesia, can be performed so easily that we can employ it even in collapsed patients without running any great additional risks. (2) Emptying of the peritoneal exudate and thorough flushing of the abdominal cavity with normal saline solution are surely of great benefit to the patient, more especially when the peritoneal cavity is drained later on. (3) An artificial anus should be established only when intestinal paralysis exists. By active interference in the acute stage we not only desire to overcome the septic condition to which most of the patients succumb, but also to ward off necrosis and sequestration of large portions of the gland occurring in many cases. The treatment of those cases which have run on to suppuration and gangrene consists in laparotomy, evacuation of pus, and drainage of the purulent foci.

In the **subacute forms of pancreatitis** the onset is more

[1] *Bristol M.-Chir. J.*, 1902 xx. 40. [2] *Loc. cit.*

gradual, the pain is less severe and the vomiting is not so violent. Here the surgeon has time to observe the case more carefully. The treatment at first may consist in the administration of morphine to quiet the pain, the use of stimulants to combat the depression, and the use of lavage and rectal feeding to relieve the vomiting. If suppuration occurs, evacuation and drainage of the abscess must be resorted to.

Chronic indurative pancreatitis is probably a more common disease than is usually supposed. Many cases diagnosed as malignant disease of the head of the pancreas are of this character. Opie's[1] conclusions so well express our knowledge of this condition that they may here be quoted:—(1) Chronic interstitial pancreatitis is slightly more frequent in males than in females. Two-thirds of the total number of cases occur between the ages of forty and sixty years. (2) The most frequent cause of chronic pancreatitis is obstruction of the duct of Wirsung, due to pancreatic calculi, to biliary calculi in the terminal part of the common bile-duct, or to carcinoma invading the head or body of the gland. Duct obstruction may be followed by the invasion of bacteria, which take part in the production of the resulting lesion. (3) Ascending infection of the unobstructed duct of Wirsung may follow an acute lesion of the duodenum or of the bile passages, and may cause chronic inflammation. In cases which have given a history of long, persistent vomiting, chronic diffuse pancreatitis may be found on autopsy, and is probably the result of an ascending infection of the gland. (4) General or local tuberculosis is occasionally accompanied by chronic diffuse pancreatitis, affecting chiefly the interstitial tissue of the gland. (5) Chronic interstitial pancreatitis is not infrequently dependent upon the same ætiological factors, notably alcohol, which produce cirrhosis of the liver, and in about one-fourth of the cases the two lesions are associated. (6) Following duct obstruction and ascending infection, the lesion affects principally the interlobular tissue, only secondarily invading the lobular tissue and sparing the islands of Langerhans. Diabetes results only when the lesion is far advanced. (7) Accompanying the so-called atrophic or Laennec's cirrhosis of the liver, the pancreas is sometimes the seat of diffuse chronic inflammation, characterized by diffuse proliferation of the interacinar tissue, which invades the islands of Langerhans. (8) Interacinar pancreatitis is usually accompanied by diabetes mellitus. When diabetes is absent the lesion is of such slight intensity that the islands of Langerhans are little implicated. (The islands of Langerhans are groups of polygonal cells in the parenchyma of the lobules. —J. S.) The treatment of chronic pancreatitis consists in the relief of tension by opening and draining the gall-bladder with the formation of a biliary fistula. Of thirty-six cases reported, thirteen recovered and five proved fatal. If, however, a definite

[1] *Am. J. M. Sc.*, 1902, cxxiii. 868.

cause can be found—such as impacted concretion in the common bile-duct or Wirsung's duct—an attempt must be made to remove it. Fortunately calculi of the pancreas as a cause of this condition are extremely rare.

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Of the **new growths occurring in the pancreas,** carcinoma is the most frequent. Sarcoma, adenoma and lymphoma are rare. The head of the organ is most commonly involved in carcinoma, and the disease may be primary or, what is more frequent, secondary to malignant disease of the surrounding structures, especially the stomach. The differential diagnosis of this disease is exceedingly difficult in the early stage and rather easy in the late stage. The development of obstructive jaundice following dyspeptic attacks, with a distended gall-bladder and ever-increasing cachexia, are the most important signs. Death usually occurs within twelve months. Two diseases—viz., common duct obstruction with a gall-stone and chronic interstitial pancreatitis—must be diagnosed, because they are usually cured by a surgical operation, while malignant disease is nearly hopeless (of fourteen cases where a portion of the affected gland was removed there were ten deaths). In the gall-stone affection there is nearly always a history of previous colics, because the stone must have passed the cystic and traversed the common duct before impaction near the head of the pancreas. The gall-bladder is not distended and the jaundice varies in intensity. In chronic pancreatitis the history of gall-stone attacks and its association with dyspepsia must be elicited. The age of the simple affection is earlier, and there is more tenderness. The cachexia is very slight compared to that of carcinoma, and the jaundice is not so intense. The treatment of malignant disease offers little prospect of cure. The risk of injury to blood-vessels, together with shock, gangrene of the duodenum and peritonitis, is very great. The biliary stasis may be relieved by cholecystostomy or cholecystenterostomy.

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X-ray photographs in pathological conditions of the pancreas would seem to be a development of the near future. According to Mr. Wilbert[1] we can usually find in cases of congested or hypertrophied pancreas a distinct and comparatively dense shadow extending a little to the right of the median line and about midway between the lower end of the sternum and umbilicus. One distinctive feature of the shadow cast by the pancreas is the fact that it is not readily movable with the motion of the diaphragm. By this simple characteristic we are usually able to differentiate between an enlarged or dense head of the pancreas and any pathological change involving the liver or stomach, though it must be borne in mind that adhesions

[1] *Am. J. M. Sc.*, 1903, cxxv. 207.

involving these organs will inhibit, or at least restrict, the natural range of motion.

Another distinctive feature may be established by taking advantage of the fact that the pancreas is located near the posterior wall of the abdomen, and on this account the resulting shadow is readily displaced by changing the relative position of the body, tube and fluorescent screen. For instance, if we move the cause of the shadow above the anode of the tube the shadow is high up, but when moved in the opposite direction it appears to be comparatively lower down.

JAMES SWAIN.

LARYNGOLOGY.

A recent discussion[1] on "**the upper respiratory tract as a source of systemic infection**" touches on many points of great interest to the general medical practitioner. In introducing this topic at the Annual Meeting of the British Medical Association at Swansea, de Havilland Hall referred firstly to the cases of typhoid fever which arose from infection through the respiratory tract, mentioning particularly a case which occurred in Bristol, reported in 1894 by the writer of this review. Hence in cases of typhoid fever with cough and expectoration, the latter should be regarded as infective, and be disinfected accordingly.

After reviewing the evidence in favour of influenza and whooping cough being contracted by infection of the nose or throat, Hall directed attention to the nasal fossæ as the frequent seat of primary diphtheria, often of a latent type, and forming the source of infection for others. Too often patients who have had slight operative treatment of the nasal passages, *e.g.* cauterisation of the mucosa, are allowed to go about their usual routine work without any warning; and it is significant that Hall has had two instances in his own experience where, after the application of the galvano-cautery, scarlatina was contracted, and as he believes, the germ entered the system through the wound produced.

The part played by the faucial tonsils in rheumatic fever and in acute endocarditis merits wider appreciation. De Havilland Hall stated that "the intimate connection which exists between the throat and acute rheumatism is shown by the frequency with which tonsillitis precedes or accompanies an attack of acute rheumatism. I think that there is a great deal to be said in favour of the view that tonsillitis is a primary infective disease of the lacunæ, and that rheumatic fever is a secondary disease arising from the absorption of microbes or their products into the system." He referred further to instances of pericarditis apparently due to infection arising through the nose and the faucial tonsils. Jobson Horne cited cases of malignant endocarditis in which the primary infection was in the larynx, the facts

[1] *Brit. M. J.*, 1903, ii. 1137.

being revealed or confirmed by the necropsies. He showed that the usual starting-point of the laryngeal ulceration was in a fold of mucous membrane, commencing behind the vocal process and passing obliquely upwards and backwards, to be lost between the summits of the cartilages of Santorini and Wrisberg. He has found this to be a site which lends itself to infection in other diseases; here secretion may tend to stagnate, and here stress and strain is put upon the laryngeal mucosa, and a breach in the inflamed surface would readily occur. This point he terms the "vulnerable spot." Horne's observations in a large number of cases dying from phthisis, including an elaborate and painstaking investigation of the larynx, led him to the conclusion that—

1. When the larynx is infected with tubercle the disease is already established in the lung.

2. That by the time the disease in the larynx has advanced to ulceration the disease in the lung has advanced to cavitation.

3. When the disease in the lung is confined to the pure miliary form the larynx is never infected.

He is firmly convinced that the infection of the larynx takes place by the sputum. It is unnecessary to do more than allude to the remarks of de Havilland Hall reiterating the evidence pointing conclusively to the naso-pharyngeal lymphoid ring as a path of invasion of tubercle, both to the cervical glands and the lungs. In the course of the discussion, among much interesting matter brought forward by Goodall, we note that in his experience tuberculous cervical lymphadenitis is in a large number of cases associated with dilatation of the lacunæ, which on close inspection show a narrow hyperæmic halo about their orifice; the tonsils, at the same time, are not necessarily enlarged. Where removal of such tonsils cannot be practised, he advises reduction of the size of the lacunæ by cauterisation or by the application of iodine.

The President expressed his decided opinion that infective processes often remained localised in the tonsils and other lymphoid tissues in or connected with the throat, and that these lymphoid aggregations, often a source of danger, were when healthy a valuable protective barrier which should not be heedlessly removed without good reason.

One more point of practical importance bearing on the question of rheumatic infections through the upper respiratory tract was adduced by Poynton, whose investigations had shown that the diplococci in the tonsils in rheumatic tonsillitis were identical with those isolated from the blood in rheumatic fever. But in many cases when once the micro-organisms have gained access to the general system they make themselves new homes in the tissues, hence every effort should be made to arrest the process in the upper respiratory tract before it generalises.

P. Watson Williams.

OTOLOGY.

At the Annual Meeting of the British Medical Association recently held at Swansea, a discussion took place on the **technique of operations on the temporal bone in suppurative middle-ear disease,** introduced by Dr. McBride, who adopted the historical method, and gave an interesting survey of the gradual development of the operations on the temporal bone.[1] He gave credit to Schwartze, of Halle, as being the chief pioneer of these operations, and it was the publication by the latter of a series of fifty cases which first brought them into the notice of the surgical world. Schwartze recommended reaching the antrum from a point a little behind the supra-meatal spine, and he made use of the mallet and gouge which are still employed by most operators, although the dental burr is used by many, either altogether or as an addition to the other instruments.

The method of Schwartze is now seldom used in chronic cases, but it continues to be the best method in acute cases. It has the great advantage of not destroying or injuring any part of the tympanic cavity or membrane, and thus when a good amount of hearing power exists it has advantages over a more radical operation; but when extensive disease exists, and more especially when there is caries either of the tympanic walls or of the ossicles, it has rightly been displaced by other operative methods of a more thorough nature, although Dr. McBride finds in a recent report from Schwartze's clinic that the original method is still used there in chronic cases, uncomplicated by the presence of cholesteatomata, where there is no perforation at the upper pole, or in the posterior superior quadrant of the membrane.

The radical operations upon the mastoid bone have this in common: in all of them removal of the posterior wall of the meatus is carried out. The real introducer of this method was Küster, the Berlin surgeon, who suggested reaching the middle ear by removing the posterior wall of the meatus. In the same year von Bergmann described his method, in which the upper wall was removed as well. These operations, however, were obviously incomplete, and the next step was taken by Zaufal, who began to operate in February, 1889, according to the method which bears his name. He removed the membranous lining of the meatus, and then chiselled away the mastoid, layer by layer, entering the blade one centimetre behind the meatus, and working towards it. If he thus reached the antrum, he completed the operation by means of bone forceps. The outer wall of the attic was removed by specially made forceps.

In 1890 Stacke brought forward the operation which still bears his name, at the International Medical Congress. In his first paper he recommended turning down a flap from the membranous meatus, and making it lie on the floor of the cavity produced by removal of the posterior wall, opening of the antrum,

[1] *J. Laryngol*, 1903, xviii. 513.

and removal of the outer wall of the attic. He abandoned this method later for the quadrilateral flap, formed by incising the posterior superior wall from within outwards to the concha, and then making a cut downwards and backwards at right angles to it. Körner, Panse, and Siebenmann have introduced modifications of the method of making the flap.

In referring to the technique of the mastoid operation as practised by most surgeons to-day, Dr. McBride remarked that most of us employ the gouge and mallet for the coarser part of the work, and use the burr for smoothing off rough edges and points. For the outer wall of the attic the bent gouge used by Stacke is particularly serviceable. In many operations Zaufal's modified bone forceps are of great value. Ballance[1] has recently revived the application of large grafts to the bone wound, a method first suggested by Siebenmann, and afterwards employed by Reinhard and Jansen. He now performs the operation in three stages. In the first stage of the operation, the removal of the disease and opening up of the cavities, he works partly with gouge and partly with burr. In dealing with the membranous meatus the flap is fashioned out of the meatus alone, so that no deformity of the concha is produced; all cartilage is removed from the flap, and the latter is sutured to the raw surface of the mastoid flap with gossamer silkworm gut, which can be removed at the second operation, or with fine catgut, which soon becomes absorbed. The way in which he deals with the membranous meatus is as follows: The floor of the membranous meatus is divided from within outwards right out to the concha. The pinna is then pulled backward and the tragus forwards, and the knife is carried through the posterior half of the extreme outer end of the meatus, just at its line of junction with the concha. The flap thus fashioned is turned upwards, and the cartilage is removed from it. It is then fixed with stitches to the raw surface of the mastoid flap. At the second operation, done one week later, an epithelial grafting operation is performed. The graft is only allowed to cover the inner wall of the tympano-attic-antral cavity, and does not cover the main mastoid cavity. It is maintained in position by means of tiny mops of sterilised wool covered with gauze. These mops are dusted with a non-irritating and drying sterilised antiseptic powder. Gold leaf is no longer used. A third operation is performed about a week later for the removal of the dead portion of the graft, and dry gauze tamponning through the meatus is afterwards maintained until all has healed.

Dr. McBride thought there was no doubt that the employment of grafts does hasten epidermization, and in this way curtails after-treatment. He considered the second operation a disadvantage, but unavoidable, unless it should be found that it is equally advantageous to leave the original wound open until after the grafting.

W. H. HARSANT.

[1] *Lancet*, 1903, i. 1010.

Reviews of Books.

Biographic Clinics. By GEORGE M. GOULD, M.D. Pp. 223. London: Rebman, Ltd. 1903.

In his preface the author upbraids the medical profession for having confined its attention to but three aspects of disease, namely, healing the patient, learning from his case how to cure others, and investigating the cause of the disease irrespective of the individual patient. The study of the patient's "life-problem, . . . all of his diseases, past, present, *and to come*" (the italics are ours), which is scientifically more important, and which should be the splendid function of the family physician, is ignored. Dr. Gould contributes but little towards the attainment of this lofty aim. He plunges at once into a "medical description of past lives," choosing for his examples De Quincey, Carlyle, Darwin, Huxley and Browning. At first sight the choice seems to be an unfortunate one, since, as he admits, in each case "there is an almost utter lack of clinical data." But, as all readers of Dr. Gould's works will suspect, he is really in quest of only one *fons et origo mali*, astigmatism. The book is clever, interesting, and shows evidence of much labour and research, but the conclusions are illogical. We are assured that De Quincey had myopic astigmatism and exophoria which provoked depression of spirits, derangement of the liver, and a craving for opium. Carlyle, who attributed his wretchedness to "an infernal disorder of the stomach," was assured by Sir R. Quain that his complaint was due to the simultaneous indulgence in smoking and eating gingerbread—"very nasty gingerbread." We learn from Dr. Gould that astigmatism was the real cause, and that Darwin's almost historic liability to sea-sickness was due to refractive error. Huxley, who was convinced that his and the prophet Jeremiah's ailments were identical, suffered from flatulent dyspepsia due to compound hyperopic astigmatism, as also were Browning's "bilious headaches." The work concludes with an elaborate account of the discovery of astigmatism and the gradual recognition of its reflex effects. We cordially commend the book to the notice both of the general practitioner and the specialist, though probably neither will be convinced by the arguments put forth.

Manual of Intragastric Technique. By GEORGE HERSCHELL, M.D. Pp. vi., 166. London: Henry J. Glaisher. 1903.

To a very large number of medical practitioners the recently introduced manipulations for the diagnosis and treatment of diseases of the stomach are still unknown. This is, perhaps, due to the fact that the shorter contributions by gastro-thera-

peutic experts lack the detailed descriptions that are essential for clearly apprehending not only what to do, but how to carry out the methods in actual practice, while on the other hand the larger treatises are too full of detail for the novice. Dr. Herschell has had the advantage of a large practical experience, and has a rare faculty of conveying to the reader most clearly and concisely the results of such experience, so that he may carry out all the manipulations himself. He seems to anticipate all the difficulties that may arise, and tells us how to avoid them. Chapter I. consists in a description of the best form of stomach tube, and how to pass it and when not to pass it. The "diagnostic inflation of the stomach," the "extraction of the stomach contents," and the "examination of the stomach contents," each receives a chapter. "Lavage of the stomach," "some intragastric methods of treatment," and the "application of electricity to the stomach" occupy remaining chapters.

The book is printed in large clear type, the text being rendered clearer and more interesting by several illustrations of the most approved forms of apparatus. We can strongly recommend this small and eminently practical manual.

Obstetrics: A Text-book for the use of Students and Practitioners. By J. WHITRIDGE WILLIAMS. Pp. xxii., 845. New York and London. D. Appleton & Co. 1903.

This is a large volume. It is written in the American discursive style, in excellent English, and without the objectionable phonetic spelling.

The illustrations are excellent, artistic, and in great abundance.

The chief fault in the book lies in the deficiency of detail in treatment. Often after a masterly article on a particular subject, treating the history, pathology, course, complications, &c., the treatment is only indicated on general principles, which would be of very little practical value to a practitioner. For instance, there is no mention of the difficulty experienced in getting rid of the whole mass in hydatidiform mole. The treatment of abortion is discussed in all its varieties in a little over a page.

The chapter on microscopical anatomy is particularly good, a subject often too scantily dealt with in text-books. Whether advisedly or not, the anatomy of the pelvic organs has little said about it.

The main part of the book is pleasant reading, exceedingly clear, and without many marked differences of opinion from most writers.

The binder is considered inadvisable before the tenth day. Ergot is never to be used before the third stage, and even then only if there are special indications.

The care of the puerperium, a most important chapter, is too short and lacking in detail.

There is a long and interesting chapter on forceps, but the indications for their application are hard to find. Extra-uterine gestation is very fully discussed, and the importance of immediate operation on unruptured cases insisted on.

The author is very strongly opposed to symphysiotomy, ending the chapter with these words: "Personally I do not expect to perform symphysiotomy under any circumstances, and consider that the present enthusiasm for it will eventually disappear."

After a careful analysis of the theories of eclampsia, he decides against the kidneys as the probable starting-point of the disease, and thinks that one day will prove it to be an auto-intoxication by materials normally got rid of, and which, being retained, give rise to the lesions found in the kidneys, liver, and brain.

The author does not give a clear account of the premonitory symptoms of this disease, and says almost nothing of the importance of watching the diminution of urea as an indication for the induction of labour.

Placenta prævia when diagnosed indicates the necessity for immediate termination of pregnancy, packing being but seldom advisable.

He is strongly averse to intrauterine douches with antiseptic lotions, considering that they are often dangerous and not so efficacious as the use of the sterile finger and boiled water.

Puerperal insanity is dismissed in a few words.

In spite of the above criticisms, the book is one of the most readable, interesting, and useful which we have at present, and although it may be somewhat too advanced for the student, it cannot fail to become popular with the practitioner.

Tuberculosis. By NORMAN BRIDGE, M.D. Pp. 302. London: W. B. Saunders and Company. 1903.

In 295 pages Bridge has condensed a quantity of common-sense remarks on the question of Tuberculosis. He treats the disease as a whole, and does not spend much space on any of the indications of tuberculosis outside the chest, but he deals with phthisis as a type of the whole disease. This he divides into eight divisions, which are rather false distinctions from our point of view, and perhaps unnecessary; for although the types he describes are undoubtedly frequently to be met with, there are many cases which would not fall under any of these precise headings.

The writer is original in his teaching, and in more places than one differs from what is accepted by most. For instance, it is rather contrary to our received ideas to hear from him that catarrhs are rather likely to protect the tissues from contact with bacilli, and do no harm of any sort except to the convenience of the patient. Again, he holds that over-development of muscle or fat is always a misfortune, and is usually followed by a

relapse of the tuberculosis, with reduced prospects of ultimate recovery. He pays a great deal of attention to indigestion, and on this account urges that the patient must be disabused of the notion that he is expected to eat a great deal at each meal: and he should be forbidden to take at any time a large meal: meals taken more frequently are better than large ones.

He is among those writers who accept apparently without question that the pulmonary apex can be infected through the lymphatic connections from the tonsils; and he urges against the sterilising of milk by boiling because of its "scorbutic" tendency.

He lays emphasis upon the relation of position to cough, which in his opinion may be diagnostic of phthisis. Thus when cough is excited by the patient's lying on the affected side it indicates that mucus is sinking back into smaller bronchioles, and this he believes to be almost indicative of phthisis. Lying on the other side, the mucus is expelled into larger bronchi, and produces no cough. This symptom ceases when the peripheral portion of lung is filled with disease products.

He deals more fully with prophylaxis and sanatorial treatment; in this he seems up-to-date, and yet he is not carried away out of the realms of common sense. This part of the book might with advantage be read by every practitioner and by many patients.

The style in places may be a little pithy and shows some want of arrangement of facts; but the book fulfils its purpose in a clear, readable way, and is presented to the reader in an acceptable form.

Sir Henry Wentworth Acland, Bart., K.C.B., F.R.S. A Memoir. By J. B. Atley. Pp. viii., 507. London: Smith, Elder & Co. 1903.

All Oxford medical graduates, as well as many Oxford men unconnected with medicine or even science, will read with interest Mr. Atley's biography of the late Regius Professor of Medicine. Sir Henry had been for so many years a prominent man in the University, had taken a leading part in placing the teaching of science on its present sure foundation, and was well known, we might almost say, as the father of the Museum. The many interesting facts brought together in the volume before us reflect great credit on the author, who has shown that he can be a painstaking biographer, and write a book which does not contain a dull place between its covers.

Sir Henry Acland was born to achieve greatness, and would have made his mark in whatever profession he had thrown his lot. The son of a well-known west-country baronet, the relative of distinguished persons, gifted with a handsome and commanding presence, possessed of charming manner, gifted with no mean powers of oratory, and with a kind and sympathetic

nature, it would have been surprising if he had not risen to the position he did even in a profession that did not generally command respect or obtain social recognition in the forties of the last century. Sir Henry's reputation, however, did not rest on his success as a physician, though he may have done good work in the small sphere of a provincial city of about 30,000 inhabitants. It was gained by his advocacy of science as a part of the curriculum for the Arts degree at Oxford, and the great efforts he made, resulting in complete success, for the erection of the centre of scientific teaching—the Museum.

Sir Henry's connection with Oxford began in 1834, when he matriculated at Christ Church. Having spent the usual term of years here he, much to the surprise and chagrin of his relatives, selected medicine as his profession, and entered at St. George's, then still under the ægis of the late John Hunter. A short stay was made at Edinburgh before Oxford saw him again as Lee Reader in Anatomy, an old benefaction with a small salary and smaller duties. Up to this time Sir Henry had taken no qualification, but a favourable opportunity occurring to commence practice by the retirement of Dr. Wootten, he took the M.B. and diploma of the College of Physicians in 1846, both of which examinations were more or less of a farce, and moved to Broad Street, where a long line of Oxford men will remember him. In 1857, by the death of Dr. Ogle, the Regius Professorship became vacant, and on Lord Palmerston offering it to Sir Henry he at once accepted it, being subsequently appointed to the Clinical Professorship after a spirited fight. These Professorships he held for 37 years. Sir Henry's contributions to literature have chiefly a hygienic tendency, and we do not recall that any use was made of the Clinical Professorship to teach clinically, and it was no doubt chiefly due to this that the attack was made on Sir Henry's methods by the late editor of the *British Medical Journal*. The Regius Professor, however, had his own views of his duties and the possibilities of a Teaching Medical School at Oxford, and was able not only to carry many leading men with him, but also to convince the Commissioners. The fact, however, remains that Oxford does not attract so many men who intend to take medical degrees as her sister University, though she is now making rapid strides to cover the distance lost. Of Sir Henry's tenure of the Chairmanship of the General Medical Council little need be said. He attended regularly, missing only one meeting in nine years, and conducted the business with tact and firmness. We need not here refer to the lost opportunities of the Council or its inability to represent the great body of practitioners in the kingdom; they have little to do with Sir Henry or Mr. Atley.

Coming then to less debatable matters, we can give our whole-hearted praise for Sir Henry's efforts on behalf of the Museum and scientific training as conducted in the University. He was the leading spirit in the movement, and there is not the

smallest doubt that the collection of the money and the subsequent erection, on the somewhat fantastic design of Woodward, of the Museum was largely due to him. This will be a far more lasting memorial of Sir Henry Acland than his strictly professional work, and too much praise cannot be accorded to him for the strenuous efforts on behalf of the scheme. He lived to see his project carried out, and no doubt far beyond his expectations.

Mr. Atley has done his part well. He has written a very interesting book, and treated many difficult matters with delicacy and fairness. Not an unkind word can be found even on subjects about which many were said and written. The index is merely one for names, which is a pity, and the dates on the headings of the pages are often confusing, but these are small matters.

Medico-Chirurgical Transactions. Vol. LXXXVI. London: Longmans, Green & Co. 1903.—A noteworthy paper by Dr. Cecil Wall on acute cerebro-spinal meningitis, caused by the diplococcus intracellularis of Weichselbaum, forms a complete clinical study of this disease, which appears to have been fairly frequent of late, as shown by the fact that a series of thirty-eight cases forms the foundation of the study. The utility of the Kernig sign is indicated, but little is said of the absence of the Widal reaction as giving an early means of differentiation from enteric fever. Professor T. Clifford Allbutt, F.R.S., contributes a most useful paper on the rise of blood pressure in later life.

The Medical Examination for Life Assurance. By F. de Havilland Hall, M.D. Third Edition. Pp. 112. Bristol: John Wright & Co. 1903.—Such a compact guide for medical examinations in Life Assurance meets the difficulties that always present themselves to the novice in this special and technical aspect of medical practice. It is the work of an expert, is reliable, and above all handy. The actuarial tables and the rules observed by various life assurance societies are not in any sense empirical, but are based on accumulated experiences, and it is instructive to observe how widely different current impressions are from the actual facts that such experience reveals on many questions. For instance, "an attack of acute rheumatism sufficiently severe to keep the patient in bed two or three weeks, and to incapacitate him from his occupation for six or seven weeks, would require the addition of an equivalent of seven years at the age of thirty, and three years must have elapsed since the attack. If there has been more than one attack, the life would not be assurable until at least ten years after the last attack. An applicant with a rheumatic history had better not be accepted under the age of twenty-five years." These rules are shown by the report on "The causes of death among the assured in the Scottish Widows' Fund" to be by no means too

stringent, but probably few medical practitioners would have come to such conclusions from personal experience alone. The work is full of the most useful suggestions and information.

Transactions of the Medical Society of the State of New York for the Year 1903. Albany: Brandow Printing Company.—The principal feature of this volume is a series of papers entitled "A Symposium on Arterio-sclerosis." The relation of arterio-sclerosis to the heart is described by Dr. Butler, to the kidney by Dr. Lyon, to the digestive system by Dr. Stockton, to the nervous system by Dr. Browning, whilst the pulsus infrequens is described by Dr. Satterthwaite, and the early diagnosis and general symptoms of arterio-sclerosis are summarised by Dr. Rochester.

Medico-Psychological Association of Great Britain and Ireland. "A Revision of the Statistics presented by the Committee on Tuberculosis." By T. A. CHAPMAN, M.D. London: Adlard and Son. 1903.—Dr. Chapman has revised the figures in the report of 1902, but does not in any way traverse the conclusions then arrived at, viz.: that tuberculosis in asylums is largely due to infection, to damp and ill-drained sites, and to inadequacy of time spent out of doors, of cubic space indoors, and of means of artificial ventilation.

St. Bartholomew's Hospital Reports. Vol. XXXVIII. London: Smith, Elder & Co. 1903.—This volume is somewhat disappointing. It is well bound and of imposing size, and one expects much from its appearance, and the fact that it represents, or should do so, the amassed experience of a year's work in one of the largest London hospitals, but half the volume is devoted to the catalogue of specimens added during the year to the museum, and to the synopsis of the annual case books. There are but few articles from the pen of the staff, and these confined to a few interesting cases. This year there is an excellent article on glioma of the retina by W. H. Jessop, which also appeared in the Transactions of the British Medical Association in 1901. A report on some experiments concerning the causation of the first sound of the heart by O. Inchley shows evidence of a painstaking original research, and goes to prove that the sound in question is due to the admixture of two sounds, the first due to and synchronous with auricular systole, and the second beginning with ventricular systole when the valves are already closed, the initial sound being altered in mitral stenosis and the other in regurgitation. The rest of the articles are for the most part the narration of interesting or uncommon cases.

King's College Hospital Reports. Vol. VIII. 1901.—The history of the College and Hospital has come to a premature termination by the decease of the writer, Professor John Curnow, whose obituary notice is the most noteworthy feature of the volume. "There never was a man who talked and looked less like the popular conception of the resourceful physician or

studious man of science. . . . It is superfluous to say that his abilities were admired and he himself was liked by all who knew him, and his death leaves a gap in our ranks which is, from a social point of view, most serious." An article on nephritis in children by Dr. George F. Still calls attention to the fact that "there is no age at which nephritis may not occur." The author does not, however, direct attention to the fact that hæmaturia in infants may be due to scorbutic conditions, dependent on dietetic defects, and easily cured as soon as the cause is recognised.

Saunders' Year-Book of Medicine and Surgery. 1901, 1902 and 1903. London: W. B. Saunders & Company.—The editorial staff, under the general charge of Dr. George M. Gould, may be congratulated on the increasing popularity of this year-book, and in the experiment made first in 1900 of issuing the work in two volumes, one of medicine and one of surgery. This experiment has proved to be very acceptable to subscribers, and it has therefore been continued. Each volume contains about 700 pages of well-printed matter, and is a carefully prepared yearly digest of scientific progress. The names on the editorial staff are a guarantee that the work will be well done, and on perusal of the volume it is difficult to discover any inaccuracies or serious omissions.

Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. Second series. Vol. VIII.—*Insane—Kysthospitalet*. Pp. 894. Washington: Government Printing Office. 1903.—The large amount of labour attended with the production of this indispensable work is shown by the fact that the present volume contains 10,704 author-titles, 5,731 subject-titles of separate books and pamphlets, and 29,684 titles of articles in periodicals. The War Department of the United States may well be congratulated on the thorough manner in which these volumes are prepared, and without which no medical library can be considered complete.

Reports from the Laboratory of the Royal College of Physicians, Edinburgh. Vol. VIII. Edinburgh: Oliver & Boyd. 1903.—This volume contains so many excellent papers and contributions to various branches of physiology and pathology, that no summary even can be attempted. Nearly a third of the volume is taken up by the record of an elaborate research, of the greatest economic and social importance, of the energy-value and prices of diet of the labouring classes in Edinburgh—investigation of which will undoubtedly play a great part in the discussion of the economic condition of the working classes in this country. The other notable paper is by Chipman on the development of the placenta of the rabbit, in which many disputed questions are apparently set at rest.

Diseases of the Skin. By MALCOLM MORRIS. New [Third] Edition. Pp. xvi., 642. London: Cassell & Co., Ltd. 1903.—

We have had the opportunity of reviewing this work—when the revised edition appeared in 1898—and also an edition in 1894. There is no doubt that works on Dermatology have increased in importance: there is an increasing demand for them, and therefore we cannot be surprised that the volume of this work has likewise become augmented, and that 614 pages of well and carefully-printed letterpress are required to do the duty of 578 pages in the previous edition, and that the Index should have developed into twenty-seven good-typed pages. Speaking generally, the present work seems well up-to-date, which we are sure Mr. Morris carefully aims at, and therefore it seems almost superfluous to enter into details. Sabouraud's researches on Ringworm are carefully stated, and the various views concerning the invading parasite, judiciously weighed. We should have wished for more enlightenment on the light treatment of lupus, and still more especially on the value of X-rays in rodent ulcer, and we have not noted a word about the help derived from high-frequency currents in the treatment of several skin affections. We notice that a marked preponderance (p. 160) of right-sided Herpes Zoster is still claimed. We have gone into this point, with large statistics, and we question this marked incidence.

The Etiology of Typhoid Fever and its Prevention. By W. H. CORFIELD, M.D. Pp. xv., 159. London: H. K. Lewis. 1902.—These Lectures, being the Milroy Lectures delivered at the Royal College of Physicians in 1902, give in concise form an admirable summary of the various factors concerned in the causation of typhoid fever. The information is well up-to-date, and the volume will well repay careful perusal.

Papers and Reports of the American Public Health Association. Vol. XXVII. Columbus, Ohio. 1902.—The sixty or seventy separate contributions to this volume present wide and varied reading in questions affecting the public health. We would call special attention to the article by Drs. Walter Reed and James Carroll on the prevention of yellow fever, with numerous illustrative plates of the mosquito (Stegomyia Fasciata) so prominently associated with the spread of this disease. The other contributions maintain a high level of interest.

Public Health Laboratory Work. By HENRY R. KENWOOD, M.B. Third Edition. Pp. xv., 606. London: H. K. Lewis, 1903.—The third edition of this well-known laboratory manual has been largely rewritten and thoroughly brought up-to-date. An appendix by Dr. W. G. Savage is added dealing with the bacteriological examination of water, milk, soil, etc. The book will prove of the greatest service to candidates preparing for Public Health Examinations.

Practical Pharmacy and Prescribing. By JAMES CALVERT, B.A., B.Sc., M.D. Second Edition. Pp. 110. London: H.

K. Lewis. 1903.—A most useful and comprehensive little work, which might with benefit be in the hands of every medical student, and would be almost equally useful on the shelves of the consulting room on entering practice. The question has often been debated whether the hospital pharmacopœia is a good or bad institution considered in the light of a factor in the education of the medical student in pharmacology and therapeutics. Probably the hospital formulary is indispensable as a saver of time for prescriber and pharmacist, but as its formulæ are necessarily generally compatible ones, the student when he begins his hospital work finds its extremely difficult to grasp the distinction between compatibles and incompatibles from a pharmaceutical standpoint. Dr. Calvert's little book furnishes a masterly and comprehensive key to the difficulties. Part I. gives a sketch of general dispensing methods and the various forms in which drugs are exhibited. The paragraph on page 2 on the weighing of small quantities of powerful drugs should quickly dispose of that apparently unsolvable problem—how to make twelve pills each containing say $\frac{1}{65}$ grain of strychnine with ordinary dispensing scales. The paragraphs on the constituents of drugs—tannin, starch, oils, etc.—form an indispensable preliminary to the study of incompatibles *per se*. One cannot well particularise where the whole of the examples are so universally useful, but as examples may perhaps be noticed, the paragraphs on sp. æther. nit. in conjunction with potass. iod. and the behaviour of quinine with various drugs, not forgetting the combination of quinine with sod. sal. which so repeatedly crops up. A very typical set of prescriptions exemplifying the various forms of incompatibility completes a particularly useful and practical book. It is often said that *practical* books on dispensing do not exist, a statement which is quite disproved by this work.

Where shall I send my Patient? A Guide for Medical Practitioners and Book of Reference to the Health Resorts and Institutions for Patients of Great Britain. Bournemouth: E. J. Frampton. 1903.—The association of medical men receiving resident patients has printed this volume, and are aware that this first number must have many omissions: their great desire is to make the book as complete and useful as possible, but they cannot do so without the co-operation of the authorities of institutions and hotels, who decline all invitations to send returns. The book contains lists of homes for all kinds of invalids, and a long list of houses where resident patients can be received. Particulars of these are to be obtained from the honorary secretary of the association, Bodorgan Manor, Bournemouth.

Thirty-five Years at Contrexéville. By DEBOUT D'ESTRÉES, M.D. Pp. viii., 132. London: The Health Resorts Bureau. 1903.—What should we do without uric acid? An excess of

uric acid in the blood is the root of all evil, and the "cure" at Contrexéville eliminates it. There are other maladies besides uric acid, and other methods of cure, but of these we learn nothing from the author of this booklet of 132 pages. Certainly the author has improved on the peripatetic method of consultation in the park worthy of the more ancient Grecian philosophers.

Buxton: its Waters, Baths, and Accessory Methods of Treatment. By WILLIAM ARMSTRONG and J. E. HARBURN. Pp. 71. Bristol: John Wright & Co. 1903. Fifty-six pages are a eulogy of the Buxton waters and baths as remedies of the greatest potency in the treatment of gout, rheumatism, and allied ailments. An appendix follows, consisting of short essays on Rheumatoid Arthritis, and the Nauheim treatment of Cardiac Diseases. The booklet appears to be a useful guide to those who are going to Buxton for treatment, and to medical men who are sending patients there.

Atlas and Epitome of Fractures and Dislocations. By Prof. HELFERICH. Edited by Dr. J. C. BLOODGOOD. Fifth Edition. **Atlas and Epitome of Abdominal Hernias.** By Dr. G. SULTAN. Edited by Dr. WM. B. COLEY. Philadelphia and London: W. B. Saunders & Co. 1902.—We are glad to welcome these additions to the excellent series of hand atlases. Both volumes maintain the standard of production, and the occasional comments of the American editors in appropriate places greatly add to their value. The coloured illustrations are beautiful—often their beauty exceeds their real utility—and the general figures are numerous and good. The text is particularly characterised by the valuable inclusion of opinions and statistics from various sources, thus avoiding narrowness of appreciation. The atlas on fractures is brought well up-to-date. It necessarily omits many items of treatment familiar to English surgeons, and Sayre's method of treatment for fractured clavicle (p. 132) is inferior, we think, to the descriptions in English text-books. We hold a high opinion of the volume on Hernias, although the abdominal topography on p. 24, the employment of taxis with the patient standing erect (p. 108), and division of the stricture from without inwards (p. 119), is knowledge which might bring sorrow to a candidate at the Thames Embankment.

Manuel de la Prostatectomie Périnéale pour Hypertrophie. Par ROBERT PROUST. Pp. 186. Paris: C. Naud. 1903.—This monograph is a model of good work, and characteristic of the literary care and artistic merit of our French colleagues in surgery. The surgical and pathological anatomy of the prostrate gland are expounded with a completeness we have never before met with, the indications for operation are described, and, lastly, a special perineal operation is given in full detail with beautiful illustrations. We can heartily recommend those interested in the subject to obtain this monograph and study it for themselves, for an adequate and yet condensed summary would be impossible.

Editorial Notes.

University College, Bristol: Faculty of Medicine.

The College was delighted to welcome an old and greatly distinguished friend at the annually recurring distribution of prizes to the medical students, performed on October 30th, 1903, by Professor Sir William Ramsay, K.C.B., Ph.D., M.D., F.R.S., who, after distributing the awards, delivered an interesting address on education in general with special reference to the medical student, and the need for increasing specialisation as the sum total of human knowledge increases. It is impossible that any one individual should know everything about everything, but it is equally desirable that most individuals should know everything about something. It is sometimes said that too many are trained to be specialists, and that specialisation has its own evils, but nevertheless the speaker pointed out the impossibility of a complete knowledge of all the subjects of the medical curriculum. He asked what can be done to lessen the load, and taking an illustration from his own subject, Chemistry, he remarked that "it is necessary sadly to confess that the compounds are so complex, the changes so intricate, and the laws of change so obscure, that only a small part of the field has been explored. Is it possible to give a medical student such a training in chemistry that he can make use of discoveries relating to the chemical mechanism of the human body and its functional disorders, so as to be able to form an intelligent opinion as to which suggested remedies should, and which should not, be attempted? I think that the answer must be a decided negative. Even an accomplished organic chemist is far from being in a position to follow the most recent researches in physiological chemistry. The changes which occur in the organism relate not merely to the fact that products are transformed, but to the conditions under which they are transformed—to physical as well as to organic chemistry and

the number of men able to handle both divisions of the science is a small one: they are to be found only amongst the most distinguished chemical and physiological investigators of the world. The problems to be solved are almost infinitely complex, and up to the present they have received inadequate study." The remedy suggested by Sir William Ramsay is to divide students into two classes: the 95 per cent. who are to become general practitioners need not be expected to have a profound knowledge of all branches of science up to examination standard, but he of course very rightly holds that every educated man should have some idea of physical science. His proposal is, therefore, "that the first year of a medical student's curriculum should, as now, be devoted to hearing lectures on chemistry, physics, and biology: that he should be required to do the usual class work, including frequent short examinations and exercises to make sure that he understands what he is learning: in a convenient phrase that he should attend the courses to the satisfaction of his teachers, but that he should not be required to show that he has crammed up the subject so as to satisfy an external examiner at the end of his year of study.'

As regards the five per cent. who are to become specialists or investigators, Sir William's view is "that it is impossible to place the standard of knowledge too high. Should we wish to pass regulations on the scope of their education, they might be formulated thus: Such men should first take a science degree, specialising in chemistry; this requires at least three, and better four, years' continuous work; they should be examined at an intermediate stage in chemistry, physics and its necessary mathematics, zoology, and botany, so far as the elements of these sciences are concerned; and, later, they should specialise in organic chemistry, with special attention to physical methods. After, or even before, graduating in science, they should carry out some special research, dealing with these two branches of chemical science. Then, and not till then, should they begin the formal study of a medical career. Their period of incubation, if I may be permitted the expression, should not be less than eight or even nine years. Beginning at the age of 17,

at the age of 28 a man may hold a demonstratorship, at 32 a chair. Or, if he choose a specialist's career, at 28 he may assist a specialist; at 35 he may begin to acquire a specialist's practice."

There is an obvious difficulty underlying this scheme, that specialists and investigators are not all made so by heredity or early training: most men hope that they may some day acquire eminence and distinction, and may achieve their aim by the influence of talent, environment and perseverance, rather than by the accidents of early training.

The medical student cannot but be grateful to Sir William Ramsay for his demonstration of the student's burden, and for his endeavour to lighten it.

* * * * *

Winsley Sanatorium for Consumption.

We are pleased to observe that the building of the main block, comprising the administration offices, dining-room, etc., and accommodation for twenty patients, is well advanced. The beds are being so rapidly taken up by private donors, various large firms, rural councils, town councils, and local committees, that the Executive Committee have been encouraged—or rather we may truly say have found it necessary—to proceed with the building of a further block to accommodate twenty-two patients more, and this too is now in process of erection. We may remind our readers that the entire use of one bed may be secured by a donation of £250 (which is considerably less than the cost price of building) and an annual subscription of £65 for its maintenance. We fear that when the building is opened some of the public bodies and country towns in the counties of Gloucester, Somerset, and Wilts will find too late that all the available beds have been secured, for a proportion of the beds —certainly not less than one-third—will be reserved for the general use of the subscribers, and therefore will not be allocated. Thus, although the Three Counties' Branch is still sorely in need of further contributions for this excellent and much-needed institution, there are not many beds remaining to

be taken up. We observe that the Bristol Corporation has secured altogether twenty beds for our City; and inasmuch as those who thus subscribe for beds will be fully represented on the Executive Committee, it seems a most favourable opportunity for providing for their poorer consumptive citizens at a much smaller cost, both for building and maintenance, than would be possible in a separate institution for twenty patients.

* * * * *

The King's Sanatorium.

We cannot refrain from referring to the laying of the foundation-stone of this Royal Sanatorium, which is intended to provide for sixty patients. Certain it is that no more beneficent and noble work has ever been conceived and presented to a nation than the Sanatorium so well initiated by His Majesty at Midhurst; yet the King's Sanatorium has not escaped adverse criticism directed against the design, and the expenditure of so large a sum as £100,000 on the buildings. We allude especially to the views advanced by Dr. Reinhardt in favour of the "hut" system, which is far cheaper and would have allowed provision for a much larger number of patients. But it is undeniable that the "single hut" or "chalet" plan has not met with general approval amongst those who have been engaged in the Sanatorium treatment of consumptives, whereas the buildings designed for the King's Sanatorium are the direct outcome of the combined experience of all the better-known and well-tried sanatoria in Germany. That it cannot be taken as a model in cost is obvious; but it is safer and most desirable that it should represent the highest ideals in designs and equipment, so that the results may encourage the erection of many similar, though less costly, sanatoria throughout the kingdom.

Cheaper Sanatoria may be built of wood, or "wire-wove," and these have proved in every way as dry, comfortable, and warm as any that are built of more durable material. The cost of building these is about two-fifths the cost of stone buildings.

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We note that a new edition of Taylor's *Principles and Practice of Forensic Medicine* is shortly to be published by Messrs. Churchill. We are asked to say that Dr. Fred. J. Smith (138 Harley Street, W.) will be glad to receive accounts of any noteworthy recent medico-legal cases, with dates and references to any trials relating thereto. Dr. Stevenson has placed his collection of poisoning cases at the disposal of the editor, who is particularly anxious to enlarge his collection of other kinds of criminal reports, such as rape, strangulation, etc.

Notes on Preparations for the Sick.

Cheltine Nutrient Milk Chocolate, Cheltine Malted Milk Chocolate, Cheltine Soluble Maltose Food.—CHELTINE FOODS, LIMITED, Cheltenham.

The Nutrient Chocolate contains nearly 30 per cent. of proteid food in combination with 27 per cent. of fat and nearly 42 per cent. of sugar constituents. It is a very acceptable sweetmeat, and should be a very convenient and nutritious kind of food for children and adults both in health and disease.

The Malted Milk Chocolate contains a proportion of the Soluble Maltose Food in addition to full cream milk. The combination has 51 per cent. of maltose and cocoa extractives, with 35·52 per cent. of fat and 12·50 per cent. of proteid. The preparation has a malty flavour, and its composition shows that it must have a high nutrient value.

The Soluble Maltose Food, for invalids and infants. This food is stated to contain no starch, and it requires no boiling; it should be mixed with a little hot water, to which milk may be added; it does not require sugar.

The *Lancet* analysis is as follows:—

Moisture	3·90 per cent.
Malt and Milk-Sugar	50·44 ,,
Dextrin and other Carbohydrates ...	34·06 ,,
Proteid	7·90 ,,
Fat	1·40 ,,
Mineral matter	2·30 ,,
	100·00

The preparation by itself is, of course, deficient in fat, but the food is intended to be made with milk, and thus a product is obtained which contains an excellent proportion of all classes of nutritive material.

An examination of this food by Mr. Oliver C. M. Davis (University College Laboratory) shows that it is almost completely soluble in water, and that it does not contain starch. Carbohydrates are represented by maltose and dextrin, there being a high percentage of the former substance. A fair proportion of proteid matter is present, so that the food contains much nourishment in an easily assimilated form suitable for the infant and for the adult whose digestion is impaired.

The food is quite palatable, and is easily prepared inasmuch as it does not need to be boiled.

Nestlé's Condensed Swiss Milk, Prepared in Switzerland; **Nestlé's Viking Condensed Milk**, Prepared in Norway.—HENRI NESTLÉ, Christiania and Vevey. London depot: 48, Cannon Street.

The former has a small quantity of cane sugar added, the latter is prepared without the addition of sugar or any other substance. An analysis by Mr. Oliver C. M. Davis (University College Laboratory) shows the former to be a full cream condensed milk, with added cane sugar. The sample examined contained 12·5 per cent. lactose, 9·7 per cent. proteid, 9·8 per cent. fat, and approximately 35 per cent. of cane sugar. None of the nutrient matter of the milk has been removed in the process of condensation.

The Viking brand differs only from the above in that it appears to have no added sugar. None of the milk fat has been removed, and this preparation is recommended to those who are unable to take much cane sugar.

Cocoa Essence, Mexican Chocolate, Milk Chocolate.—CADBURY BROTHERS, Bournville.

These preparations are all excellent, as the name Cadbury is a sufficient guarantee. Chocolate and cocoa preparations are becoming increasingly popular, and need no commendation. They have a high value from the nutrient standpoint, and there is nothing to be said against their greatly extended use.

Potter's Malt Egg.—POTTER & CLARK, 60 Artillery Lane, London, E.C.

This preparation is an Extract of Malt prepared "in vacuo," with which is incorporated yolk of egg. The diastatic value of the malt has not been impaired during the manufacture, nor

have the proteids of the egg been coagulated. An analysis (Mr. Oliver C. M. Davis, University College Laboratory) indicates the presence of albumins and globulins in large amount, also maltose, but no added sugar. There is only a slight amount of ash, which contains phosphates. The substance is very pleasant to the taste, and should be readily taken by children.

Jeyes' Soluble Fluid. Creolin (Disinfectant), **Creolin** (Medical). —JEYES' SANITARY COMPOUNDS, 64 Cannon Street, London.

These fluids have established for their promoters a well-deserved reputation. The soluble fluid when mixed with water gives a clear solution (not an emulsion): it consists largely of meta-cresol and para-cresol in a pure state. These bodies are kept in solution by means of a saponifying agent which appears to be a soda soap.

There are no indications of the presence of any metallic antiseptics.

The Medical Creolin is a purified form for internal administration and medical purposes generally. We are informed that an examination of this fluid (University College Laboratory) shows it to contain large amounts of the isomeric cresols, and in addition the higher homologues of the cresols appear to be present, inasmuch as substances with higher boiling.points than cresols were separated on distillation. Its value as a germicide has been abundantly established: it is found to be sixteen times stronger than carbolic acid, whilst its toxic and irritating properties are many times less. For surgical uses a strength of one in two hundred is sufficient.

The Izal Vapouriser.—NEWTON, CHAMBERS & Co., Thorncliffe, Sheffield.

This little apparatus consists simply of a brass cup from which the Izal disinfectant can readily be volatilised by means of an ordinary night-light.

Everyone is familiar with the powerful and reliable antiseptic action of Izal, even when diluted with one hundred parts of water. To its many surgical uses there is no need to allude. The vapouriser is especially intended for evaporating fluids in the patient's room in cases of croup, whooping cough, phthisis, and other affections where antiseptic inhalations are likely to be useful. Dr. Tunnicliffe reports much benefit in cases of phthisis, and Colin Campbell uses Izal for intra-tracheal injection.

Arabella Natural Mineral Water. — ARABELLA LIMITED, London, W.

This natural water, bottled at the springs, Kolenfeld, Budapest, has a specific gravity of 10.386 and contains 41.312 grammes

per litre of mineral substances, of which about ninety per cent. consist of the sulphates of magnesium and sodium, with small quantities of the carbonates of magnesium and calcium.

Its composition gives a sufficient indication of its probable action, and experience shows that those who expect a definite aperient result will not be disappointed.

We have received samples of many of the **newer products** of Messrs. OPPENHEIMER, SON & Co., 179 Queen Victoria Street, London.

Many of these were exhibited at the Swansea meeting of the British Medical Association, and are familiar to most physicians. Some of the less familiar are worthy of mention.

Aseptoids are tablets which afford a ready and convenient means of instantly making a solution for nasal use or gargles.

Cerettes are neat flexible containers, made of gelatine and filled with ointments or medicated soaps, each cerette holding sufficient for one application.

Cocoids are tiny pastilles containing medicaments of fixed quantities carefully intermixed with a palatable chocolate basis.

Rectones are improved nutrient and medicated suppositories.

Ergole is a new preparation of Ergot possessing three times the strength of the B.P. preparation.

Laxoin is a synthetic laxative, which is palatable and does not gripe; its effect is not lost by repeated administration, and it may be taken without harm for long periods of time.

Maglactis (milk of magnesia) is a creamlike fluid containing magnesium hydrate, which is antacid and soothing in cases of gastric catarrh.

Pinheroin is a palatable combination containing terpin hydrate gr. j., heroin hydrochlor gr. $\frac{1}{40}$ in each fluid drachm, with essence of Canadian pine.

Renaglandin—the expressed extract of the suprarenal gland—is an aseptic concentrated extract, containing all the active principles in natural solution. It has proved to be a most efficient styptic. Prepared in the form of rectones, it is a very useful agent in the treatment of hemorrhoids.

The **improved Aërizer** is an instrument which renders fluids as fine as smoke, and thus enables medicated vapours to be inhaled into the smaller branches of the bronchial tubes, so directly reaching the affected lung tissue. This spray, with Neboline Compound, No. 21, has been found to be very useful in the treatment of asthma.

The Library of the Bristol Medico-Chirurgical Society.

The following donations have been received since the publication of the List in September :

November 30th, 1903.

Cassell and Company, Ltd. (1)... ... ... 1 volume.
The Manager of *The Colliery Guardian* (2) ... ... 1 ,,
Hubert Kerslake (3) ... ... 1 ,,
The Royal College of Physicians of London (4)... 1 ,,
R. Shingleton Smith, M.D. (5)... ... ... 5 volumes.
The Society for the Study of Disease in Children (6) 1 volume.
The Surgeon-General, United States Army (7) ... 1 ,,
University College, Bristol (8) ... ... 1 ,,

Pamphlets have been received from Mr. L. M. Griffiths and Dr. R. Shingleton Smith. Some unframed portraits have been presented by Mr. L. M. Griffiths.

FIFTIETH LIST OF BOOKS.

The titles of books mentioned in previous lists are not repeated.

The figures in brackets refer to the figures after the names of the donors, and show by whom the volumes were presented. The books to which no such figures are attached have either been bought from the Library Fund or received through the *Journal*.

Allchin, W. H. [Ed.] *A Manual of Medicine.* Vol. V. 1903
Ankylostomiasis : its Cause, Treatment, and Prevention ... ... (2) 1903
Atlas of Illustrations of Clinical Medicine, Surgery, and Pathology, An N. S. Fasc. I.–VII. 1902–03
Atlay, J. B. ... ... *Sir Henry Wentworth Acland, Bart : A Memoir.* 1903
Beale, P. T. B. ... ... *Aids to Physiology* 1903
Bishop, E. S. ... ... *Essentials of Pelvic Diagnosis* 1903
Bramwell, J. M. ... *Hypnotism* 1903
Carpenter, G. ... ... *Golden Rules for Diseases of Children* ... 2nd Ed. [1903]
Carter, R. B. ... ... *Doctors and their Work* 1903
Catalogue (Index) of the Library of the Surgeon-General's Office, United States Army ... ... (7) 2nd Ser. Vol. VIII. 1903
Catalogue of Accessions to the Library of the Royal College of Physicians of London during 1903 ... ... (4) 1903
Chapman, T. A. ... *Medico-Psychological Association of Great Britain and Ireland. A Revision of the Statistics presented by the Committee on Tuberculosis* 1903
Coats, J. ... ... *Manual of Pathology.* (Ed. by L. R. Sutherland.) 5th Ed. 1903

Cunningham, D. J. ... *Manual of Practical Anatomy.* Vol. II. 3rd Ed. 1903
Edgar, J. C. ... ... *The Practice of Obstetrics* 1903
Ellison, Mary A. ... *Manual of Massage.* (Revised by G. Manley.) 2nd Ed. 1904 (*sic*)
Fink, G. H. ... ... *Cancer and Precancerous Changes* 1903
Fothergill, W. E. ... *Manual of Midwifery* ... ... 3rd Ed. 1903
Gould, A. P. ... ... *Elements of Surgical Diagnosis* ... (1) 3rd Ed. 1903
Hall, F. de H. ... ... *The Medical Examination for Life Assurance* 3rd Ed. 1903
Harley, G. ... ... *Diseases of the Liver* ... ... (5) 1883
Hayden, T. ... ... *Diseases of the Heart and Aorta* ... ... (5) 1875
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MEETINGS OF SOCIETIES.

Bristol Medico-Chirurgical Society.

Annual Meeting, October 14th, 1903.

After a vote of thanks to the retiring President (Mr. G. MUNRO SMITH) had been unanimously passed, Mr. PAUL BUSH took the chair, and gave an introductory address [see p. 289]. Subsequently a cordial vote of thanks was given to Mr. Bush for his able address.

Mr. BUSH, as retiring secretary, read the Secretary's Annual Report. The balance in hand was £153 19s. 5d., as compared with £80 2s. 6d. at the end of the previous session. The Society had to regret the loss of four members through death, viz.: Dr. J. G. Swayne, who was president in the session of 1880—1881, Mr. W. M. Barclay, Mr. H. T. Rudge, and Dr. W. A. Perry. The report was adopted, and thanks given to the secretary for his services.

The Editorial Secretary (Mr. JAMES TAYLOR), and the Honorary Librarian of the Medical Library (Mr. C. K. RUDGE), then read their Annual Reports, which were adopted.

The following officers were chosen for the ensuing year:—President-elect, Dr. Reginald Eager; Hon. Secretary, Mr. H. F.

Mole; Members of Committee, Dr. J. Michell Clarke, Mr. J. Dacre, Dr. B. M. H. Rogers, Mr. J. Taylor, Dr. H. Waldo, and Dr. P. Watson Williams; and Members of the Library Committee, Mr. C. K. Rudge, Mr. G. Munro Smith, and Dr. A. Ogilvy.

November 11th, 1903.

Mr. J. PAUL BUSH, C.M.G., President, in the Chair.

Mr. T. CARWARDINE showed (1) a small **ovarian dermoid containing mammæ.** A well-formed nipple and areola were visible at one place, and above this another small swelling of a similar character. The patient was pregnant at the time of operation, and the pedicle of the tumour was twisted. (2) **A prostate gland which had been removed by the supra-pubic route.** The patient had made a good recovery, and now had complete control of the bladder. For comparison with this, prostatic adenomata removed by McGill's method were also shown.—Mr. C. A. MORTON alluded to an operation of the kind he had performed in an old man, who also had a vesical calculus. There had been a good deal of hemorrhage, but the shock had not been great. Recovery followed.—Mr. HEY GROVES, referring to the ovarian dermoid, asked how far pregnancy had advanced at the time of operation. It had been observed that dermoid cysts were specially liable to torsion of their pedicles, and also that pregnancy seemed to favour such torsion in all ovarian tumours.—Dr. WATSON WILLIAMS referred to the tendency of patients to develop insanity after prostatic operations.—Mr. ROGER WILLIAMS discussed the origin of mammæ in dermoids. According to the sequestration theory, ovarian dermoids arose through the proximity of the ovaries to the ectoderm in the early stages of development. This permitted the sequestration of ectoderm cells in the ovaries. There had been a tendency to deny that these prominences in ovarian dermoids were really nipples. They might contain sebaceous and other types of glandular tissue. The teeth in dermoids might be similarly explained by the sequestrations of ectoderm cells.—Mr. CARWARDINE stated that the patient with the dermoid had been three months pregnant. There had been many cases in which insanity had developed after prostatectomy, but probably not in so great a proportion as after the operation of double orchidtectomy. If there was a strong history of insanity in a patient, or if a patient had already shown a tendency to insanity, the operation was exceptionally risky. But any operation on the genito-urinary organs in old people might lead to insanity.

Dr. J. ODERY SYMES showed **microscopical specimens of trypanosomes in human blood.**—[For his remarks on this parasite *vide* p. 325.]—Dr. MARKHAM SKERRITT, under whose care the patient had come, after previously being under the care of Sir Patrick Manson and others, read notes of the

previous history of the patient. Details of the case have been published in the *British Medical Journal* of May 30th and (of the necropsy) Dec. 5th, p. 1462.—Dr. EDGEWORTH asked if the hypnococcus had been found, and Dr. SYMES replied in the negative.

Mr. PRICHARD read a paper on **the subsequent history of a case of pylorectomy.** The history of the case up to the time when pylorectomy had been performed, and the description of the operation and its immediate results, had been given to the Society on a previous occasion.* For about twelve months after the operation the patient had remained well, and had had good digestion and gained flesh. In September of this year she began to have pain on the right side of the abdomen with tenderness there, and constipation. The temperature rose to 102°, and dulness in the appendix region developed. Laparotomy was performed and pus evacuated from behind the uterus. Three days later the patient died from peritonitis. A *post-mortem* examination showed new growth entensively involving both ovaries, and infiltration and thickening of the wall of the cæcum and the smaller curvature of the stomach. The appendix was normal. The nature of the growth in the pylorus at the time when pylorectomy was performed had been doubtful; some of those who saw the tumour had regarded it as an inflammatory growth, others as malignant disease (sarcoma). All the diseased parts were shown by Mr. Prichard.—Mr. MORTON still thought the original disease of the pylorus had been inflammatory, and that the cause of death had been a primary sarcoma of the ovaries with secondary growth in the cæcum and smaller curvature of the stomach. He alluded to the great difficulty there was in distinguishing between inflammatory exudation and sarcoma microscopically.—Mr. MUNRO SMITH thought the sections showed that the growth in the ovaries and pylorus was sarcomatous.

Dr. MICHELL CLARKE read notes on the following cases, and showed specimens and microscopical preparations obtained from them. (1) Gumma of the spinal cord from acquired syphilis in a man aged 48. The gumma was growing from the meninges into the cord at about the position of the pyramidal tract in the lumbar region, and the cord was much destroyed. The symptoms included localised atrophy of the muscles of the left thigh and calf, girdle pain at the level of the 10th to 12th dorsal roots, rigidity and increase of deep reflexes. In addition, there was a large gumma of the brain in the region of the right arm and leg centres. (2) Meningomyelitis of the cord from a case of hereditary syphilis. The specimens showed meningomyelitis with well-marked endarteritis of branches of the anterior spinal artery, degeneration in the column of Goll above, and in the crossed pyramidal tracts below, the seat of

* Vide *Bristol M. Chir. Journal*, 1902, xx. 285.

the chief lesion, which was at the level of the 3rd and 4th dorsal roots. The meningitis, which constituted an internal pachymeningitis, had a considerable vertical extent over the dorsal and lumbar regions of the cord. The patient was a youth of 21, who a year previously had been treated for cerebral syphilis. He showed old interstitial keratitis and Hutchinson's teeth. The cord lesions caused complete paraplegia, with incontinence of urine and fæces, exaggeration of deep reflexes, and loss of all forms of sensation below the 4th dorsal roots. The upper limit of the lesion was clinically so definitely localised that laminectomy was done, as there seemed a prospect of relieving him by operation. The operation was performed by Mr. Lacy Firth, and was well borne by the patient, but afforded no relief to the symptoms. (3) Sections of the spinal cord showing a central cavity in the cervical region (hydromyelia). This was found accidentally in a child of three who died from a tumour (glioma) of the cerebellum. There were no symptoms of the cavity during life. Specimens were also shown indicating the presence of a descending tract in the anterolateral region of the cord (? from Deiter's nucleus), and of the extreme compression of the bulb which can be produced by a slowly growing tumour without causing degenerations.

Dr. WALTER SWAYNE read a paper on a case of **Cæsarian section.** The obstruction to parturition was a tumour in the pelvis. The patient had been admitted to the Bristol Royal Infirmary for abdominal pains which had been thought to be labour pains, but which had ceased after an enema had been given. A large hard tumour occupied the pelvis, only leaving room for the passage of two fingers side by side between its anterior surface and the symphysis pubis. It was doubtful whether the tumour was a fibroid or an ovarian cyst. The period of pregnancy was a little doubtful, for, although the fundus of the uterus reached the ensiform cartilage, this was partly due to the fact that the fœtal head could not descend into the pelvis. It was decided to wait until full term before operating. [We hope to publish Dr. Swayne's paper in full in our next issue.]

Mr. ROGER WILLIAMS read a paper on **subungual exostosis.** This growth he had found affecting the great toe in thirty-four out of thirty-five collected cases. The little toe was the next most frequently affected. The tumour was attached to the tibial side of the ungual phalanx of the great toe. The cortex of the tumour was continuous with that of the phalanx, and the central part with the spongy bone of the interior of the phalanx. Sometimes the exostosis was attached to the external or dorsal surface of the phalanx. In the growing stage, fibro-cartilage lay between it and the ungual phalanx, and also covered its outer surface. The growth was innocent, and originated from a

cartilaginous rest beneath the periosteum. It was surprising to find it stated in a recently-issued book that these growths were often sarcomatous, and the statement was wrong. Attention was usually first attracted to the growths in adolescence. The majority arose spontaneously. In ten out of thirteen of his cases no cause could be found. The growth had no connection with the cartilage of the epiphysis. When there were multiple exostoses on the toes and in other parts, the subungual exostosis was not found in association with them. Rarely the growth was found affecting a finger. The speaker thought the evidence was in favour of the view that the exostosis was the representative of a lost *preaxial* hallux. In removing these tumours it was advisable to remove the terminal part of the phalanx, as if this was not done there was great likelihood of a recurrence.—Mr. LACY FIRTH said in his experience it was not necessary to remove more than the tumour itself and the cartilage surrounding it.

J. LACY FIRTH.
H. F. MOLE (*Hon. Sec.*).

Local Medical Notes.

University College, Bristol.—Prof. Sydney Young has been appointed to the Chair of Chemistry, Trinity College, Dublin. Dr. F. J. Poynton, a former student of this College, has been appointed Assistant-Physician to University College Hospital, London. The following students were successful in the recent M.B. Examination of the University of London, viz.:—*1st Division*, A. R. Short, B.Sc.; *2nd Division*, J. J. S. Lucas, B.A., M.R.C.S., J. D. C. Calcott, J. E. Sparks, M.R.C.S., A. W. C. Richardson. The following students have obtained the M.R.C.S. and L.R.C.P. Diplomas:—F. H. Pickin, R. H. N. Rutherford, and W. T. Webb.

Bristol Royal Infirmary.—J. A. Nixon, B.A., M.B., B.C. (Cantab), has obtained the M.R.C.P. (Lond.) Diploma. The following appointments have been made, viz.:—Assistant House Physician and Resident Obstetric Officer, N. A. W. Conolly, M.R.C.S., L.R.C.P.; Assistant House Surgeon and Anæsthetist, W. T. Webb, M.R.C.S., L.R.C.P.; Casualty Officer, C. W. W. James, M.R.C.S., L.R.C.P.

Bristol General Hospital.—The following appointments have been made:—Assistant House Physician, H. Devine, M.R.C.S., L.R.C.P.; Assistant House Surgeon, F. H. Pickin, M.R.C.S., L.R.C.P.; Assistant House Surgeon in the Casualty Department, C. A. Moore, M.R.C.S., L.R.C.P.

Bristol Dispensary.—Messrs. Charles Corfield, M.R.C.S., L.R.C.P., and Leonard A. Moore, M.R.C.S., L.R.C.P., have been appointed Medical Officers to this Institution.

Bristol Eye Dispensary.—The new premises recently added to the Orchard Street Eye Dispensary were formally opened on Nov. 10th by Miss Tyndall, under the presidency of Mr. P. J. Worsley, who gave the following interesting account of the history of this useful Institution. He remarked that, as that was almost the first occasion upon which there had been anything like a meeting of the public at that Dispensary, it might be interesting to hear shortly what the origin of the Institution was. He presumed that there must have been a very considerable need of eye dispensaries and hospitals in Bristol about the beginning of the last century, because the Eye Hospital and that Dispensary were founded within two years of one another —in 1810 and 1812 respectively. What Bristol did in this respect before that he did not know, and he was afraid the poor people must have had rather a bad time. About 1812 Mr. Estlin, a well-known surgeon, was living in Park Street, and began, he believed, seeing poor patients at his own house gratuitously. He went on with that for some forty years—a very long time for a practising surgeon to be able to continue a work of that nature. Mr. Estlin had a nephew—Mr. Augustin Prichard—who was of the same surgical ability, and was for a very long time the oculist of Bristol. He succeeded his uncle, and carried on the Dispensary, not, he thought, in Orchard Street, but somewhere in the neighbourhood. His friends helped him to extend the scope of the Dispensary, money being found to take a house for it, and Mr. Prichard worked at it himself for no less than sixty-two years, which was, he thought, almost an unparalleled record. He managed it with great economy, and it was perfectly marvellous what an amount of good work he was able to do upon the slender means furnished to him. He received a few bequests and gifts, which he husbanded with very great care and skill. He wished the Dispensary to become more of a public institution, and he got together a committee, to whom he handed over the little funds he had accumulated, together with the lease of the old house in Orchard Street. He was assisted for some time by Mr. Crosby Leonard. Fortunately, Mr. Prichard had a son, and when he retired Mr. Arthur Prichard was able to take up the work. He associated with himself Mr. Cyril Walker and Dr. Ogilvy. Such, briefly, was the history of the Institution. It was the effort of one family, and work of which a family might well be proud, and they might be proud to have families in Bristol who were doing such good work.

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